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THE SCHOOL REVIEW
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VOLUME XXVII APRIL 1919 NUMBER 4

A SPECIAL ACADEMIC CLASS IN THE JUNIOR HIGH SCHOOL

T. W. GOSLING,
Department of Public Instruction, Madison, Wisconsin

The junior high school offers to school administrators an unusual opportunity to provide for the individual aptitudes of children and to train these aptitudes for social service. If the school is small, it is not possible to have extensive classification of pupils according to ability. The only differentiation that is possible in a small school is that which the teacher in the regular course of instruction can provide by means of scientific method which regards the individual pupil rather than the class group as the unit-objective in the teaching process. In large schools classification according to ability and according to the interests and the needs of the children becomes possible.

The purpose of this paper is to give an account of an experimental scheme of classification which is receiving a test in the Lafayette Bloom Junior High School, a unit of the large public-school system of Cincinnati; to record some observations that were made in the course of the first year of the experiment; and to draw some conclusions based upon the experience of the year.

The avowed purpose of the Bloom Junior High School from the time of its establishment in 1915 has been to provide educational opportunities suited to the needs of all kinds of children in their early adolescence. On account of the provisions of the Ohio law which require boys to remain in school until they are fifteen years of age and girls to remain until they are sixteen, the junior high school was organized so as to include the seventh, eighth, ninth, and tenth grades. By the end of the tenth grade the great majority of pupils are at least sixteen years of age. The organization of the school makes it possible, therefore, to care for the pupils in attendance until most of them have reached the age prescribed by the school-attendance law.

It is a perfectly legitimate function of a school to provide for the needs of children who are going to withdraw as soon as the law will permit and to adjust its curricula to the demands of those who have but little interest in books and who have a large interest in the kind of activities usually associated with industrial and commercial training and with the household arts. To limit a school to the service of pupils of this type, however, is to make a class school of it, to make it an agency which will tend to perpetuate the distinctions between the more favored and the less favored members of society. In other words, a school which interests itself in the welfare of only those children who through lack of interest in study or through the pressure of economic necessity will drop out as soon as the law permits is an undemocratic school; it is likely to increase that very kind of social stratification which the Prussian school system aimed to accomplish and which it is to the interest of a democratic society to avoid.

The best thought regarding the junior high school considers it as the most democratic of all schools—a school for pupils of all types of mind. There is something remarkably inspiring in this association of pupils of all kinds in a common

enterprise. Juxtaposition alone tends to breed sympathy and understanding and thereby to promote social solidarity. In order to broaden the scope of the Bloom Junior High School and to bring its activities into harmony with this broad social purpose, the writer of this article, who was the principal of the school at the time, suggested to the superintendent of schools the organization of a special academic class to be composed of pupils who, at the end of the sixth grade in any of the elementary schools of the city, might be recommended by their principals on account of unusual academic scholarship for classification with a group of children who would undertake to do in the seventh grade some of the work which ordinarily is deferred until the first year of the senior high school—the ninth grade in the school system.

The reason for establishing in the seventh grade a special academic class of gifted pupils rather than an ordinary academic class is given in the letter of the principal to the superintendent of schools as follows:

> There is a considerable amount of criticism of the American school because it delays too long the preparation of pupils who wish to enter the professions. American professional men are said to be two or three years older than the men of England, Germany, and France when they enter upon their life-work.
>
> As a result of this condition many bright boys and girls who might render distinguished service in various fields are obliged to forego the advantages of a higher education and to enter upon activities which, though honorable, do not call for the exercise of the peculiar abilities with which they are endowed. If suitable opportunities were offered to boys and girls of this type, they might easily prepare for earlier entrance upon collegiate and professional study. The general result most likely would be to lengthen the period of schooling for many who now drop out early because the goal of their ambitions is too remote.
>
> Since the junior high-school organization is attempting to differentiate its curricula according to the needs of various types of pupil there seems to be no good reason why the accelerant pupil of the academic type should not receive consideration. In the Lafayette Bloom Junior High School it would

be possible to care for a group of boys and girls of this type. In the beginning we should wish to receive into the seventh grade about forty whom the various principals would recommend on the basis of the advantages which might accrue to these boys and girls from entering upon an academic high-school course two years earlier than is now the custom.

This suggestion was approved by the superintendent of schools and adopted by the Board of Education. Accordingly in the spring of nineteen hundred and seventeen the following announcement was sent to all the principals:

Special Academic Class

The purpose of the academic class at the Lafayette Bloom Junior High School is to give to those pupils who are unusually proficient in their studies and who would like to prepare for a higher education in college and professional school an opportunity to do more advanced work than is possible in classes where they do not need to put forth their best efforts in order to succeed. It is harmful to the intellectual development of boys and girls to permit them to live on a low plane of effort when they ought to be living on a high plane. This statement does not mean that pupils should be taxed beyond their ability and their strength. It means merely that "it is only when we do our best that our best appears."

A class of pupils selected on the basis of ability ought to be able to save a year or two of the time usually required to accomplish the work of the last six years of the public schools. The purpose of this saving should not be to enable boys and girls to leave school earlier than they would under the usual conditions, but to bring college and the professional school nearer and thus within easier reach of those who are most likely to be the intellectual leaders of the community.

The Lafayette Bloom Junior High School will be prepared to organize next September a special academic class of forty seventh-grade pupils from the various schools of the city. These pupils should be of unusual mental ability and of sound health. The curriculum for the first year will be as follows:

	Hours
Physical Training and Hygiene	5
Latin or First-Year German	5
General Science	5
Mathematics	5
English	5
Music	½
Penmanship	½
Drawing	2
Household Arts, Girls / Industrial Arts, Boys	2
Total	30

Principals who have pupils who would be likely to profit by this opportunity are requested to fill the blank on the next page and to have the parent signify his approval by affixing his signature.

As a result of this appeal twenty-three pupils who regularly would have entered seventh-grade classes in eleven different schools in widely separated parts of the city were enrolled in the special academic class at Bloom in September. Somewhat later in the year another pupil from the ninth grade of a suburban high school was admitted to the class. Thus the total enrolment was twenty-four.

The original purpose of the principal involved a psychological examination as a basis upon which to determine eligibility for admission to the class. The difficulties that usually are inherent in the beginning of any enterprise made it necessary to abandon this purpose in most instances and to accept the recommendations of principals instead. However, as soon as possible after the organization of the class all the members except the ninth-grade pupil and except the few who had been examined previously were given the usual psychological tests by the vocation bureau of the public schools. It is noteworthy that of the twenty-three pupils who were examined all but one were recommended by the vocation bureau for enrolment in the special class on the basis of the psychological tests. Thus the judgments of the principals were confirmed.

The psychological tests revealed marked differences in ability among the members of the class; for example, the intelligence quotient was found to range from ninety-nine to one hundred and forty-nine. The tests other than those of the Stanford Revision of the Binet-Simon Scale showed results of equal interest on account of the range.

The program of studies offered to the class was quite frankly of the ninth-grade type. It differed from the usual ninth-grade program in requiring that one hour be devoted every day to physical training and hygiene; in giving a larger amount of attention to drawing than usually is given; and in including work in the household arts for girls and in the industrial arts for boys. This would seem to be a better-balanced arrangement than the first year of the senior high school usually offers.

No attempt was made to complete all of the conventional work of the seventh and eighth grades. Instead there were bold eliminations of all of the work of those grades that was not needed directly for the successful prosecution of advanced studies. Only so much of the arithmetic was retained, for example, as was necessary to prepare pupils for a successful study of algebra. English grammar, as it was needed, was taught in connection with the study of English literature and composition and also in connection with the Latin in so far as a knowledge of English constructions was essential for a comprehension of the Latin. This method leaves certain gaps in the information of the pupils. The problem to be considered in this connection involves a judgment of the relative importance of the information omitted and of the advanced studies which the children take under the incentive of the new plan.

On October 17, shortly after the opening of the school term, the teachers of the class were asked to give to the principal an estimate of the relative standing of the pupils in each study according to ability. This subjective estimate, made after only a slight acquaintance with the pupils, affords an interesting

means of comparison of the results of the psychological tests, the early impressions of nine different teachers covering the relative abilities of the members of the class, and the actual scholarship records reported by the teachers at the end of the first and the second semesters. Table I arranges the twenty-three pupils according to their intelligence quotients and shows by comparison the estimated ranking in October in each of the four academic subjects and also the ranking according to scholarship marks at the end of the first semester and again at the end of the year. The rankings in subjects other than the academic are not given because these seemed less significant than the rankings in academic subjects and also because the boys and the girls were in separate classes in some of these other subjects. Under these conditions no useful comparisons could be made.

Table II summarizes from Table I the results of the rankings in the four academic subjects and places these results in comparison with the ranking according to intelligence quotients. These summaries are obtained from Table I by adding the corresponding figures in the various columns under the four academic subjects and by determining thereafter the order in which these sums would rank for the group of twenty-three students. The lowest sum would rank number one and the highest sum would rank number twenty-three. For example, by referring to Table I it may be seen that pupil No. 1, who has an intelligence quotient of 149, is given an estimated rank of 17 in English, of 2 in general science, of 2 in Latin, and of 1 in mathematics. These estimated ranks when added together give 22. This figure appears in column 3 of Table II. After the results are obtained for all of the pupils of the class, it is found that 22 is third in order. Pupil No. 8 with a total of 11 is first and pupil No. 2 with a total of 15 is second.

The scholarship records of the class for both the first and the second semesters are given in Table III. These records

are significant because they show not only the relative rank of the pupils, but also the wide differences among the members of the class in accomplishing the work of the year.

TABLE I

Pupil	Intelligence Quotient	English			General Science			Latin			Mathematics		
		Estimated Rank	First-Semester Rank	Second-Semester Rank	Estimated Rank	First-Semester Rank	Second-Semester Rank	Estimated Rank	First-Semester Rank	Second-Semester Rank	Estimated Rank	First-Semester Rank	Second-Semester Rank
1. Boy	149	17	6	9	2	2	3	2	5	11	1	1	2
2. "	137	1	1	2	4	4	3	7	11	11	3	7	5
3. "	136	8	22	....	22	23	....	22	22	....	23	20	....
4. "	134	10	5	5	8	2	1	3	8	7	4	4	2
5. Girl	128	9	16	8	15	12	20	5	18	18	12	15	15
6. Boy	126	4	10	15	17	7	6	13	15	16	15	15	13
7. "	125	4	19	9	3	12	3	20	21	20	5	21	20
8. Girl	124	1	1	1	7	5	7	1	1	1	2	4	1
9. Boy	121	21	21	18	20	18	16	21	12	11	9	13	13
10. "	121	3	4	9	5	1	2	16	20	19	7	1	11
11. "	120	19	16	18	12	12	7	8	12	9	13	12	11
12. "	120	16	10	13	21	20	16	17	18	17	22	21	15
13. "	120	23	20	....	10	12	....	23	23	....	20	19	....
14. "	118	18	13	15	9	7	7	6	3	1	14	10	7
15. "	117	22	23	....	19	12	....	9	16	....	10	8	....
16. "	116	13	6	13	13	11	7	4	16	11	11	8	6
17. "	114	12	13	20	11	6	15	15	4	3	16	11	9
18. Girl	111	15	13	9	23	18	20	11	5	6	18	13	15
19. "	108	14	16	17	14	22	20	19	5	3	19	15	9
20. Boy	108	4	1	4	1	7	13	10	8	15	8	6	7
21. "	106	20	....	....	16	....	....	18	....	....	6	....	....
22. Girl	104	11	8	5	6	7	7	12	10	7	17	23	20
23. "	99	7	9	5	18	21	14	14	12	9	21	18	15
24. Boy*	....	....	10	2	....	17	7	....	2	3	....	1	4

*Pupil No. 24 entered the class late from the ninth grade of a suburban high school. He was not given the psychological tests.

Pupil No. 8 is one of the first to attract attention in a study of each of the foregoing tables. This girl by virtue of her scholarship marks is entitled to a rank much higher than her intelligence quotient gives her. In fact, Table II, which repre-

sents what may be called the consensus of opinion, gives her the first rank in the class. Whether the marks are too high or the intelligence quotient too low, it is very difficult to determine. Though the charming personality of the girl might lead

TABLE II

Pupil	Intelligence Quotient	Sum of Estimates of Rank	Order of Sum of Estimates of Rank	Sum of Ranks for First Semester	First-Semester Rank According to Sum of Ranks	Sum of Ranks for Second Semester	Second-Semester Rank According to Sum of Ranks
1. Boy	149	22	3	14	2	25	5
2. "	137	15	2	23	5	21	4
3. "	136	75	21	87	23	.....	.....
4. "	134	25	5	19	3	15	2
5. Girl	128	41	8	61	18	61	20
6. Boy	126	49	12	47	11	50	15
7. "	125	32	7	73	21	52	17
8. Girl	124	11	1	11	1	10	1
9. Boy	121	71	20	64	19	58	18
10. "	121	31	6	26	6	41	10
11. "	120	52	13	52	14	45	12
12. "	120	76	22	69	20	61	20
13. "	120	76	23	74	22	.....	.....
14. "	118	47	11	33	8	30	6
15. "	117	60	15	59	16	.....	.....
16. "	116	41	8	41	10	37	7
17. "	114	54	14	34	9	47	13
18. Girl	111	67	19	49	13	50	15
19. "	108	66	18	58	15	49	14
20. Boy	108	23	4	22	4	39	8
21. "	106	60	15	.....	.....	.....	.....
22. Girl	104	46	10	48	12	39	8
23. "	99	60	15	60	17	43	11
24. Boy	.....	.....	.....	30	7	16	3

her teachers somewhat to overestimate her accomplishments, it is not necessary to account for the high marks by assuming an error on the part of the teachers, for the attitude of the girl toward her work is sufficient to lift her above the rank where her intelligence quotient places her, even if we assume that this quotient is determined with absolute correctness.

TABLE III

Pupil	Intelligence Quotient	Drawing		English		Latin		Mathematics		General Science		Penmanship		Physical Training (Boys)		Physical Training (Girls)		Printing (Boys)		Sewing (Girls)	
		First Semester	Second Semester	First Semester	Second Semester	First Semester	Second Semester	First Semester	Second Semester	First Semester	Second Semester	First Semester	Second Semester	First Semester	Second Semester	First Semester	Second Semester	First Semester	Second Semester	First Semester	Second Semester
1. Boy	149	85	80	90	87	88	83	92	90	93	90	65	80	76	81	....	....	100	85	....	....
2. "	137	85	85	95	93	83	83	85	87	92	90	75	80	85	88	....	....	70	85	....	....
3. "	136	60	....	70	....	60	....	65	....	62	....	60	....	65	....	....	....	70	....	....	....
4. "	134	95	90	92	90	87	88	90	90	93	95	80	85	70	86	....	....	70	90	....	....
5. Girl	128	90	90	82	88	77	72	72	70	78	70	90	100	....	....	92	93	....	....	82	85
6. Boy	126	90	90	85	82	80	78	72	73	83	86	75	80	79	84	....	....	75	85	....	....
7. "	125	90	90	80	87	70	63	63	60	78	90	90	95	66	84	....	....	68	63	....	....
8. Girl	124	90	90	95	95	96	95	90	93	87	85	95	100	....	....	91	93	....	....	89	85
9. Boy	121	90	85	72	77	82	83	73	73	72	71	85	95	74	95	....	....	70	85	....	....
10. "	121	90	90	94	87	75	70	92	75	95	93	80	90	76	80	....	....	85	93	....	....
21. "	120	85	85	82	77	82	85	77	75	78	85	90	100	85	83	....	....	65	80	....	....
12. "	120	90	86	85	85	77	77	63	70	70	71	75	80	69	74	....	....	77	85	....	....
13. "	120	90	....	74	....	56	....	68	....	78	....	85	....	70	....	....	....	55	....	....	....
14. "	118	80	70	84	82	92	95	78	80	83	85	80	90	86	90	....	....	60	90	....	....
15. "	117	70	....	67	....	78	....	82	....	78	....	75	....	92	....	....	....	55	....	....	....
16. "	116	85	85	90	85	78	83	82	83	80	85	70	90	82	85	....	....	70	90	....	....
17. "	114	85	70	84	77	90	93	77	78	85	73	70	80	82	92	....	....	60	78	....	....
18. Girl	111	90	90	84	87	88	90	73	70	72	70	90	95	....	....	90	90	....	....	83	85
19. "	108	90	90	82	78	88	93	72	78	68	70	90	100	....	....	94	95	....	....	85	85
20. Boy	108	90	88	95	92	87	82	87	80	83	81	90	90	79	80	....	....	65	90	....	....
21. "	106	Transferred to Industrial Arts curriculum, October 19.																			
22. Girl	104	90	90	89	90	85	88	58	60	83	85	95	100	....	....	93	95	....	....	82	88
23. "	99	90	86	87	90	82	85	70	70	70	76	80	90	....	....	94	94	....	....	87	85
24. Boy	....	85	85	85	93	95	93	92	88	77	85	80	85	78	66	....	....	50	85	....	....

The four pupils who did not complete the work of the year make an interesting study. No. 21 after only a few weeks with the class was transferred at his own request to the industrial arts curriculum. This boy had come from Russia only five years previously. The prevailing language of his home is still Jewish. This handicap of language, coupled with the demands on the boy's time outside of school in carrying on remunerative employment, made it difficult for him to maintain a proper interest in his work. Most likely the change to the other curriculum was, in view of all the circumstances, a wise one to make.

Pupil No. 15 failed in part of his work on account of personal dissatisfaction. The cause of this dissatisfaction was never wholly determined. It seemed to be due largely to a wish to resume his relationship with a group of boys with whom he had associated in his former school. He was permitted at his own request to return to the school from which he had come.

Pupil No. 11 was requested to return to his former school on account of the attitude of the home and also because on account of failure in three subjects he did not seem to be likely to succeed.

The most suggestive comparison which the tables offer is to be found in the records of pupils No. 3 and No. 23. In reporting upon the psychological tests, the examiner said of No. 3 that his intelligence quotient—

puts him into the group of very superior children approaching the lower limit of the group which Terman designates as possible geniuses. In his Supplementary tests these findings were corroborated. Only in the Form Boards did he fail to make an extraordinary record for his years. In his Association by Opposites he made a perfect record in a short time, which puts him into the highest 10 per cent of our fourteen-year school boys. In the test of routine learning, Substitution, he made a record well above the average fourteen-year school boy, while in the Trabue Language test he ranked eighteen years old. Altogether M—— is a remarkably able child—among the best that we have had. He should be helped if necessary to secure an education proportionate to his superior powers.

Quite in contrast with this enthusiastic commendation of No. 3 is the following report upon No. 23:

> On the Stanford Revision of the Binet Scale, L—— passes tests giving her a mental age of twelve years and eight months. This gives her an intelligence quotient of 99 and classifies her as normal. The Supplementary tests tend to confirm this finding, but there are some exceptions. On the A Form Board she made only a seven-year record and in a language completion test she did only as well as a sixth-grade child. However, on the Substitution test, the Opposites, and the Hard Directions tests her record is above twelve years. Her record in such tests as the Induction, Clock, and Code indicates superior power of mental imagery. On the whole, she is developed normally for her age, and her progress through school has been normal. She is well able to do the seventh-grade work, but the tests do not indicate superior ability which would be required in a rapidly moving class.

The subsequent scholastic records of pupils Nos. 3 and 23 do not support the prognostication of the psychological examination. At the end of the first semester, No. 3 had failed in every subject of study but two (70 is the mark required for passing). On the other hand, No. 23 had maintained a passing grade in every subject and had advanced to the seventeenth rank in the class. At the end of the second semester No. 23 had advanced to the eleventh rank. On the advice of the principal, No. 3 had returned to his former school at the end of the first semester.

Personal knowledge of pupils Nos. 3 and 23 affords an explanation of the results in each case. Though No. 3 had all the native ability necessary to make a marked success in his work, he lacked the application, the determination, and the grit that were characteristic of the girl. She knew that she had a difficult task to perform, and she set herself resolutely to achieve success. The boy, on the other hand, was not on his mettle. Apparently he had been accustomed to doing his work without much effort. When there was need of effort, the boy did not respond. Even in the matter of attendance he was very irregular. In other words, the attitude of the boy was

not conducive to success and the boy failed; the attitude of the girl was conducive to success, and she was rewarded with the success which she was determined to gain.

This personal equation is something which psychological tests have not been able to measure. Consequently, psychological tests alone are not a sure guide to the classification of pupils. Classification in fact involves prognosis—a field of psychology which as yet is not developed to an extent that would justify administrators in relying wholly upon it. Meanwhile it is of the utmost importance to remember that the attitude of a child is almost, if not quite, as much a determining factor of success as is his aptitude. It is the duty of the school to cultivate right attitude as well as to develop natural aptitude. Since attitude is a matter of the free will, sometimes, as in the case of Pupil No. 3 of the special academic class, even a favoring environment does not produce the right attitude.

Of the twenty pupils who remained to the end of the year (June, 1918), fourteen passed in all of their subjects, five failed in one subject, and one failed in three subjects. Those who passed in all of the subjects accomplished an amount of work almost equivalent to that which is done in the ninth grade of the senior high school. The deficiency in mathematics was most marked—a deficiency due in part to a change of teachers in the first semester. However, if the same rate of progress is maintained in the second year as in the first, by the end of the second year most of the pupils of the class will be fully prepared to enter the third grade of the senior high school. For this group, therefore, the experiment will result in bringing the date of college entrance nearer by two years than would have been possible under the usual conditions.

If the success of the experiment in the first year had been obtained at the expense of the physical or the mental health of the pupils, success of course would not have been worth the price. No evil effects were noticeable, however, except in the

case of one boy, who overtaxed himself physically in efforts that were in no way connected with the regimen of the school. Careful physical examinations by the school physicians were made twice in the course of the year. As a group, the members of the class were more buoyant and vigorous at the end of the year than they were at the beginning.

This exuberance of spirits may be attributed in part to the daily program of physical training and also to the methods of teaching by which excessive assignments of home work were avoided. The recitations were one hour in length. According to the policy of the school the study-recitation plan was used. Under this plan the hour was devoted to teaching and to learning, not merely to the hearing of recitations for which pupils had prepared at home. The amount of required home work, therefore, was much less than usually is required of high-school students. By so much, then, the nervous tension was reduced.

What the social effect would be if there were a general adoption of the plan which has been followed for the year, it is impossible as yet to know. There is but little doubt that the effect upon the members of the group which formed the basis of the experiment has been good. They have had a joyous and successful experience which has brought to them returns which they could not have obtained in any other way. Before passing final judgment upon the plan, however, we need to know whether the separation of the members of the group from the classes to which they had belonged has had a deleterious effect upon those who remained.

About all that can be said at the present time is that classification is one of the effective means of avoiding the retardation of pupils. Correct classification will make it possible for all to proceed at a rate of speed which is determined by their abilities. With correct classification, there will be no failures and no retardation. Surely the social advantage would

be great if the losses from failure and from retardation could be eliminated. In any scheme of scientific classification a special academic class will have a place, for it undoubtedly meets the needs of certain types of mind. It remains for the psychologists and the school administrators to develop a scheme of classification which will meet the needs of all types and which will adjust the scheme to both social and individual needs.

PLAN FOR ORGANIZING THE ENTRANTS INTO THE HIGH SCHOOL OF COMMERCE ACCORDING TO THEIR ATTAINMENTS IN SCHOLARSHIP, THEIR CAPACITIES, AND THEIR AIMS

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For a number of years the teachers in the High School of Commerce have been conscious that the method which we were using in grouping students who enter the high school was defective in many respects. In accordance with common practices, we were grouping our entering students into uniform sections upon the basis of the foreign language indicated in their application blanks. All boys, once this choice of language was recorded, were subjected to the same treatment; they all took up the same topics in practically the same way. They were given the same examinations and were marked by the same scale.

What was the result?

The progress of the brighter boys was retarded, and the slower boys fell behind in the race. In consequence, before the first term was over, many of the slower boys gave up in discouragement, and the brighter boys, having learned that the school did not engage all of their intellectual energies, were developing habits of idleness and poor work.

In view of these conditions, in the spring of 1918 we resolved to try an experiment. We disregarded the stated choice of all applicants for admission and put all boys who entered the school into uniform reservoir classes for a period of three weeks. These classes were organized as far as possible upon a neighbor-

hood basis. Boys from the same elementary school were grouped together in one class. This classification proved most satisfactory from the boy's standpoint because it placed him in a group with other boys with whom he was acquainted. Old associations and elementary-school traditions were brought into the high school. Old habits were not torn up by the roots. From the teacher's point of view, also, the arrangement was an improvement. We were able to understand the mental habits of the pupils more easily and to shape our work to fit in with things which the boys had already learned.

Identical programs were prepared for all of these classes. For three weeks the boys met the teachers of English, mathematics, foreign languages, social science, and commercial branches, and tests both for information and for intelligence were carefully applied.

In English a carefully planned review was put into operation. Each individual pupil was under observation with a view to rating him according to his accomplishments. But the tests were not administered to the exclusion of teaching. The boys were not conscious that they were under observation. As far as they could see they were being handled in exactly the same way as the boys in the upper grades.

The rating in English was a combination of marks in four different subjects: (1) oral composition, (2) letter-writing, (3) reading, (4) grammatical usage and punctuation. Each pupil gave one or more original one-minute talks, wrote three letters, and was subjected to a specially designed two-minute reading test to determine ability in pronunciation and to discover defective phonation. At the same time three uniform written tests were conducted covering such points in grammatical usage as the agreement of verb with subject, the correct discrimination between adjective and adverb, the use of single and not double negatives, and the proper use of verb forms such as "did" and "saw," "done" and "seen." In

punctuation the tests covered the use of the period, the interrogation point, the comma, the apostrophe, and other common punctuation marks.

Boys whose grades thus determined averaged 75 per cent or better for the three weeks of observation were put into rapid advancement classes in English. Three such classes, averaging 37 each, were formed. These classes will be expected to cover two terms' work in one term.

Boys with defective phonation as evidenced by stammering, stuttering, lisping, etc., were segregated. Sixty-two such cases were found and formed into two classes for special treatment. None of these will be allowed to take up the study of a foreign language until the fault has been cured.

Some thirty or forty other pupils who attained a low standing in English and mathematics were also excluded from the study of a foreign language for the present, so that they might be able to devote more attention to improving these fundamentals.

A summary of the results in English as reported for 783 boys at the end of three weeks shows:

1	boy	with	over	90	per	cent;	8	boys	with	over	85	per cent
57	boys	"	"	80	"	"	122	"	"	"	75	" "
217	"	"	"	70	"	"	534	"	"	"	60	" "

At the other end we find 249 boys who could not make 60 per cent, and 90 of these could not reach 40 per cent.

A similar course was followed in mathematics. During the observation period ten uniform reviews or tests in arithmetic in the form of 70 different problems were informally administered. The topics covered included the four operations in integers, decimals, business fractions, and simple problems in percentage and interest. The grade of the work was what would be required for graduation from an elementary school.

Those who attained an average of 75 per cent for the three weeks were permitted to drop the first-term work in arithmetic

and were put immediately into classes in commercial algebra which the others will take up in their second term. Those who made between 70 per cent and 75 per cent and who also stood well in the other subjects were also advanced to commercial algebra. Altogether, six such classes, averaging 40 each, were formed.

A summary of the results in mathematics as reported for 783 boys at the end of three weeks shows:

14	boys	with	over	90	per	cent	41	boys	with	over	85	per cent
101	"	"	"	80	"	"	167	"	"	"	75	" "
293	"	"	"	70	"	"	495	"	"	"	60	" "

At the other end we find 288 boys below 60 per cent, and 67 of these unable to make 40 per cent.

The tests for language ability presented a special problem. Not only was the attempt made to determine whether a pupil could reasonably hope to succeed in the study of a foreign language, but each pupil properly qualified was guided and helped to make an intelligent choice. Prejudice and hastily made decisions had to be combated. Those not qualified had to be convinced that it was to their advantage to postpone the study for the time being. The applicant for entrance into the high school came to us this time with his choice made. He was disposed to persist in that choice.

By actual count we found that of the 872 applicants who indicated a choice on June 28, 1918, 646, or 74 per cent, elected Spanish, 185, or 21 per cent, elected French, and only 41, or 5 per cent, were content to study no foreign language.

The extent of the change accomplished may be appreciated by a comparison of these figures with what we found when the observation period was over on October 7, 1918. Of the 790 pupils in actual attendance, 369, or 47 per cent, were studying Spanish, 151, or 19 per cent, were studying French, and 270, or 34 per cent, were taking no foreign language at all.

To obtain these results the language teachers spent part of heir three periods a week during the observation period in discussing the advantages and the advisability of studying this or that or any foreign language, and the wisdom of deferring the study to a later period. Parts of English grammar which would prove helpful in the study of any foreign language were reviewed and comparisons made.

During this period also the language teachers conducted a series of aptitude tests. These tests, three in number, were devised by Dr. Briggs and Dr. Kelley of Teachers College, and were intended to discover the extent of a pupil's aptitude for studying a foreign language. The value of these tests will be ascertained by the records of the pupils. We have at least entered upon a period in which we shall make an effort to determine scientifically as well as empirically which students are prepared to take up the study of a foreign language in the secondary schools.

As a result of these tests and the other classroom work and discussions, the language teachers were enabled to recommend the grouping given above.

The number of pupils who were dissatisfied because they were excluded from the study of a foreign language for one reason or another was negligible. It amounted to scarcely 5 per cent of the total number of boys who were placed.

The net results of the experiment are as follows. Of the twenty first-term classes, nine were given Spanish as a foreign language, four were given French, and seven were given no foreign language at all. There were two classes doing advanced work in English, two doing special work to correct defects in phonation, six doing advanced work in mathematics, and two doing advanced work in bookkeeping. In other words, we have succeeded in classifying our students to some extent upon the basis of their abilities and their attainments. The brighter boys are grouped in special classes and are being stimulated

instead of retarded; the duller boys are placed in groups in which they are being given work commensurate with their ability instead of being held to standards to which they never could attain. The choice of language has been made with some degree of intelligence; it has not been left altogether to chance.

It is, of course, too early to attempt to evaluate the results of the experiments. This group of some 750 or 800 boys will be watched with a view to determining the effect of this classification. We shall undoubtedly find weak spots in our new organization. We recognize the need for further study of the problem; we already see possibilities of carrying the system of classification farther; but we are already certain that the new system which we have just inaugurated is better than any method of classifying entering students which we used in the past.

MEASURED RESULTS OF SUPERVISED STUDY, II*

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Results based on strictly comparable groups.—The general method of procedure in the present experiment, as previously stated, was the method of comparable groups. These groups were arranged by principals and teachers in accord with the general directions for the experiment, which prescribed certain uniformities. In the practical school situations that had to be met, however, compromises were sometimes necessary. As a matter of fact, some of the paired groups arranged under these conditions are comparable only by a sort of courtesy. Lack of uniformity was most noticeable in respect to the initial ability of paired classes. Even between compared continuous groups the variation was sufficiently marked to justify a comparison of results upon the basis of more strictly comparable groups. A glance at Table I, for example, to cite an extreme case, will show that the continuous groups in School III had preliminary percentages of 39.7 and 57.6. School VIII exhibited an initial large difference between the two groups, the preliminary percentages being 72.3 and 81.6. While these two are the most striking cases among the algebra classes, there are other pairs that differ by small amounts. It was feared that this variation, though on the average small, might be attended by a corresponding variation in the amount of the improvement percentage, on the principle that equal percentages of improvement do not represent equal amounts of improvement when the opportunity for improvement varies, or, otherwise expressed, when the improvement percentages are measured from different points on a common scale of

*Continued from School Review of March 1919, p. 204.

achievement. Furthermore, comparison based upon a central tendency only does not seem so reliable as a comparison that rests, in addition, upon equal degrees of variability in the two groups.

In view of these considerations it was decided to select more strictly comparable groups from the classes and compare the progress of these groups. In other words, this question was asked: What are the relative effects of supervision and non-supervision on two groups of exactly the same size, matched individually in ability, equal therefore in average ability, taught by the same teacher, belonging to classes of approximately equal enrolment, made up of pupils present at every test, and so on through the list of other uniformities?

In order to facilitate the selection of these more strictly comparable groups, the names of the pupils of all compared classes were arranged in parallel columns according to magnitude of preliminary scores and horizontally according to group intervals of 10 per cent. The same number of pupils was selected from each group interval in both classes in such a way that average scores for the group interval and individual scores in the group interval were as nearly as possible the same in both classes.

A fairly typical outcome of the method of selection just described is shown in Table IV, which is for two algebra classes in High School VIII during the period from the preliminary to the semifinal test.

Each score in the columns for the preliminary test represents the average score of the individuals selected in the group interval. It will be noted that in these two comparable groups of ten each the average preliminary scores differ by 0.2 per cent. In no case in the groups thus arranged did the difference between the average scores amount to more than a small fraction of 1 per cent.

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In Table V are presented the results for the strictly comparable groups in the twenty algebra classes. Except for the arrangement of comparable groups, the method of tabulating the results was precisely the same as that used in Table I.[1] Here, as in Table I, of the ten classes that had supervised study, five showed greater gains than their comparable unsupervised classes and five showed smaller gains. The average amount of improvement was 1.2 per cent greater for unsupervised study. When computation was made of the improvement up to the semifinal test of those groups that

TABLE IV

PERCENTAGE SCORES OF TWO STRICTLY COMPARABLE GROUPS SELECTED FROM ALGEBRA CLASSES IN HIGH SCHOOL VIII

GROUP INTERVALS	SUPERVISED					UNSUPERVISED				
	Frequency	Preliminary	Teacher's Semifinal	Laboratory Semifinal	Combined Semifinal	Frequency	Preliminary	Teacher's Semifinal	Laboratory Semifinal	Combined Semifinal
41–50	1	50	45.2	73	59.1	1	50	28.6	54	41.3
51–60	3	59	61.0	76	68.5	3	60	54.7	79	66.9
61–70	1	70	45.2	73	59.1	1	70	52.4	70	61.2
71–80	2	80	51.4	73	62.3	2	80	36.9	63.5	50.3
81–90	1	90	57.1	82	69.6	1	90	57.1	72	64.6
91–100	2	98	58.3	79	68.7	2	97.5	73.8	86	79.9
Average	....	74.3	54.9	76	65.5	....	74.5	52.4	73.2	62.8

later continued to the final test, it was found that four of the seven supervised classes made greater relative gains than the compared unsupervised classes, and that these four supervised classes showed a greater relative gain of 1 per cent. The results, after the methods of study were reversed, are shown in the lowest section of the table. Only one of the seven classes

[1] School Review, March, 1919, p. 201.

TABLE V

PERCENTAGE OF EXCESS OF IMPROVEMENT IN COMPARABLE GROUPS UNDER SUPERVISED AND UNSUPERVISED STUDY IN FIRST-YEAR ALGEBRA

CHARACTER OF CLASS DATA	HIGH SCHOOL II	III	IV	VII	VIII	IX	X	XI	XII	XIII	Av.	HIGH SCHOOL II	III	IV	VII	VIII	IX	X	XI	XII	XIII	Av.
Enrolment	24	15	11	23	19	17	12	18	19	17	17.5	24	15	13	21	16	15	12	21	24	21	18.2
Frequency	12	9	8	16	10	10	5	8	17	8	10.3	12	9	8	16	10	10	5	8	17	8	10.3
Preliminary score	71.9	44.3	82.8	87.2	74.3	88.8	49.8	82.8	83.1	53.0	71.8	71.8	44.6	83.2	87.3	74.5	88.6	49.6	82.8	83.4	52.7	71.9
Excess of Improvement	Supervised					Preliminary to Semifinal (A)						Unsupervised										
By teacher's scores	....	....	11.0	1.3	2.7	....	....	6.7	....	15.8	3.1	5.9	16.4	....	....	....	5.6	2.7	....	3.7	....	3.4
By laboratory scores	....	....	7.7	0.7	3.0	....	....	2.7	....	14.9	2.4	6.0	15.2	....	....	....	3.5	6.4	....	8.2	....	4.0
By combined scores	....	....	9.3	4.1	2.9	....	....	4.7	....	15.4	3.2	6.0	15.7	....	....	....	4.6	4.6	....	10.1	....	4.4
Av. net excess	....	....	....	....	....	....	....	....	....	....		....	....	....	....	....	....	....	....	....	....	**1.2**
	Supervised					Preliminary to Semifinal (B)						Unsupervised										
By teacher's scores	....	....	11.0	1.3	....	....	....	6.7	....	15.8	4.4	5.9	16.4	....	....	....	....	2.7	....	....	....	3.5
By laboratory scores	....	....	7.7	0.7	....	....	....	2.7	....	14.9	3.2	6.0	15.2	....	....	....	....	6.4	....	....	....	3.6
By combined scores	....	....	9.3	4.1	....	....	....	4.7	....	15.4	4.6	6.0	15.7	....	....	....	....	4.6	....	....	....	3.6
Av. net excess	....	....	....	....	....	....	....	....	....	....	**1.0**	....	....	....	....	....	....	....	....	....	....	....
	Unsupervised						Semifinal to Final					Supervised										
By teacher's scores	7.4	....	8.3	3.9	....	....	7.8	5.0	....	6.6	5.3	....	4.4	....	....	....	....	....	....	....	....	0.6
By laboratory scores	6.6	....	11.8	2.4	....	....	....	....	....	6.0	3.9	....	6.3	....	....	....	....	1.6	3.2	....	....	1.4
By combined scores	7.0	10.1	3.1	....	....	3.1	0.9	....	6.3	4.4	....	5.4	....	....	....	....	....	....	....	....	....	0.7
Av. net excess	....	....	....	....	....	....	....	....	....	....	**3.7**	....	....	....	....	....	....	....	....	....	....	....

TABLE VI

PERCENTAGE OF EXCESS OF IMPROVEMENT IN COMPARABLE GROUPS UNDER SUPERVISED AND UNSUPERVISED STUDY IN FIRST-YEAR LATIN

Character of Class Data	HIGH SCHOOL			Av.	HIGH SCHOOL			Av.
	I	IX	X		I	IX	X	
Enrolment	13	19	17	16.3	13	15	17	15
Frequency	9	10	9	9.3	9	10	9	9.3
Preliminary score	89.1	89.3	72.8	83.7	89.1	88.5	73.3	83.6
Excess of Improvement	Preliminary to Semifinal (A)							
	Supervised				Unsupervised			
By teacher's scores	4.6	13.1	11.8	10.0	....	....	....	0.0
By laboratory scores	....	15.7	3.2	6.6	5.0	....	....	1.6
By combined scores	....	14.4	7.6	7.6	0.2	....	....	0.1
Av. net excess	....	....	....	7.5	....	....	....	....
	Preliminary to Semifinal (B)							
	Supervised				Unsupervised			
By teacher's scores	4.6	....	11.8	8.2	....	....	....	0.0
By laboratory scores	....	....	3.2	1.6	5.0	....	....	2.5
By combined scores	....	....	7.6	3.8	0.2	....	....	0.1
Av. net excess	....	....	....	3.7	....	....	....	....
	Semifinal to Final							
	Unsupervised				Supervised			
By teacher's scores	....	....	0.4	0.2	1.6	....	....	0.8
By laboratory scores	....	....	....	0.0	4.2	....	1.5	2.9
By combined scores	....	....	....	0.0	2.9	....	0.5	1.7
Av. net excess	....	....	....	....	....	....	....	1.7

TABLE VII

PERCENTAGE OF EXCESS OF IMPROVEMENT IN COMPARABLE GROUPS UNDER SUPERVISED AND UNSUPERVISED STUDY IN NINTH-GRADE ENGLISH COMPOSITION

Character of Class Data	HIGH SCHOOL II	HIGH SCHOOL V	HIGH SCHOOL XIV	Av.	HIGH SCHOOL II	HIGH SCHOOL V	HIGH SCHOOL XIV	Av.
Enrolment	19	17	16	17.3	23	20	16	19.7
Frequency	18	9	9	12.0	18	9	9	12.0
Preliminary score	86.1	68.1	83.6	79.3	86.1	67.7	83.6	79.1
Excess of Improvement	**Preliminary to Semifinal (A)**							
	Supervised				Unsupervised			
By teacher's scores	....	....	1.6	0.4	2.6	7.1	....	3.1
By laboratory scores	....	....	1.9	0.5	0.4	11.7	....	3.1
By combined scores	....	....	1.7	0.4	1.5	9.4	....	3.1
Av. net excess	....	....	....	....	....	....	....	**2.7**
	Preliminary to Semifinal (B)							
	Supervised				Unsupervised			
By teacher's scores	....	....	1.6	0.8	....	7.1	....	3.6
By laboratory scores	....	....	1.9	1.0	....	11.7	....	5.9
By combined scores	....	....	1.7	0.9	....	9.4	....	4.7
Av. net excess	....	....	....	....	....	....	....	**3.8**
	Semifinal to Final							
	Unsupervised				Supervised			
By teacher's scores	....	2.9	1.3	2.1	....	....	....	0.0
By laboratory scores	....	2.5	2.5	2.5	....	....	....	0.0
By combined scores	....	2.7	1.9	2.3	....	....	....	0.0
Av. net excess	....	....	....	2.3	....	....	....	....

having supervised study during the second period of the experiment showed a greater relative gain than its paired unsupervised class. The unsupervised classes exhibited a net excess improvement of 3.7 per cent.

Turning now to the treatment of results in the Latin classes by the method of strictly comparable groups, Table VI, one notes that of the three classes having supervised study, two, according to the combined scores, showed greater relative improvement over the corresponding unsupervised classes to the extent of 14.4 and 7.6 per cent, respectively. In the other pair of classes the unsupervised class appears to have improved the more. After the methods were reversed, the advantage persisted on the side of supervised study in both pairs of classes that continued through the final test. The net excess improvement for the supervised classes in the final test reached 1.7, despite the fact that the classes which exhibited this gain began the last period of the experiment 3.7 per cent behind the classes with which they were compared.

In English composition, as shown in Table VII, only one of the three groups having supervised study showed a gain over its corresponding unsupervised group. The average net excess of improvement in these groups was in favor of unsupervised study by 2.7 per cent. Two of the three groups supervised in the first period of the experiment continued with their corresponding groups to the final test. In the semifinal test one of these two supervised classes showed a result in favor of supervised study, the other in favor of unsupervised study. The percentage of excess improvement was on the side of unsupervised study to the amount of 3.8 per cent. This advantage was lost after supervised study superseded unsupervised, both unsupervised classes showing greater improvement than the supervised classes to the average amount of 2.3 per cent.

Results from poor and good pupils.—In the review of previous investigations it was observed that the results from one of these investigations indicated a loss to bright pupils through supervised study. This indication is fraught with so much importance for the future organization of supervised study that it seemed advisable to examine the data for the first period of the present investigation from the standpoint of improvement of poor and good pupils. Accordingly, the individual scores of all strictly comparable groups, after being arranged in order of magnitude, were divided into two groups at the median. If the number of scores in the original group happened to be odd, the median score was omitted. Thus were obtained from each class two groups which will be termed the poor and the good. Table VIII illustrates the method of dividing the classes into such groups and the manner of tabulating the data for each pair of classes. In this illustrative tabulation it will be seen that there are eight pupils in each of the poor groups, and a like number in each of the good groups. Of the two poor groups, the one under supervised study has a preliminary average of 78.6 per cent; the other, unsupervised, an average of 79.3 per cent. In the same order the preliminary averages for the good groups are 87.8 and 87.5 per cent. Each of the poor groups, it will be noticed, was matched by this plan with another group of equal ability and numbers under the same teacher; likewise each good group.

Table IX is a summary of the preceding form of tabulation, showing the progress of the poor and good groups under supervision and non-supervision in all classes and subjects. The plan of comparison should become clearer by a reference to the table. In School II, for example, in algebra, there were six pupils in the poor supervised group, six in the poor unsupervised group, six in the good supervised group, and six in the good unsupervised group. The frequency figures in the second column apply to each of the four groups represented

horizontally in the table. The table includes similarly arranged results for English composition and Latin, based on the work, in all three subjects, of 320 pupils.

TABLE VIII

THE METHOD OF DIVIDING CLASSES INTO AND TABULATING DATA FOR POOR AND GOOD GROUPS; RESULTS FOR ALGEBRA IN SCHOOL XII

SUPERVISED CLASS					UNSUPERVISED CLASS				
Names of Pupils	Preliminary Score	Semifinal Scores			Names of Pupils	Preliminary Score	Semifinal Scores		
		Teacher's	Laboratory	Combined			Teacher's	Laboratory	Combined
	Poor Group					Poor Group			
H. B.	75	50	71	60.5	M. C.	76	83	98	90.5
M. B.	77	45	76	60.5	R. J.	77	83	94	88.5
A. M.	77	66	66	66	A. B.	78	94	97	95.5
L. K.	78	83	79	81	R. F.	78	83	94	88.5
M. H.	79	66	79	72.5	H. R.	80	62	81	71.5
B. L.	79	66	66	66	R. T.	80	83	96	89.5
C. H.	82	83	83	83	E. H.	82	79	80	79.5
J. R.	82	33	58	45.5	M. B.	83	95	97	96
Av.	78.6	....	....	66.9	Av.	79.3	....	....	87.4
	Good Group					Good Group			
A. W.	83	83	96	89.5	E. J.	85	95	99	97
E. N.	84	70	74	72	M. J.	85	100	100	100
G. A.	85	79	99	89	A. M.	85	79	95	87
R. K.	86	79	99	89	A. M.	85	79	99	89
C. D.	89	83	99	91	E. H.	86	50	60	55
M. S.	89	66	96	81	I. A.	88	95	99	97
E. B.	90	83	98	90.5	W. B.	90	95	99	97
M. A.	96	83	98	90.5	W. F.	96	83	94	88.5
Av.	87.8	....	....	86.6	Av.	87.5	....	....	88.8

In the columns of "Gain or Loss," superiority for supervised study is indicated by a plus percentage, inferiority by a minus percentage. In algebra, it will be noted, in six of the ten pairs of poor groups, supervised study was superior, with

a net superiority among the poor pupils of about 1 per cent. Consulting the data for algebra in the right half of the table, one observes that supervised study showed superiority in four of the ten pairs of good groups, with an average inferiority

TABLE IX

COMPARATIVE PERCENTAGES OF IMPROVEMENT, UNDER SUPERVISED STUDY, OF POOR AND GOOD PUPILS IN THREE SUBJECTS

School	Frequency	Poor					Good				
		Supervised		Unsupervised		Gain or Loss	Supervised		Unsupervised		Gain or Loss
		Preliminary	Semi-final	Preliminary	Semi-final		Preliminary	Semi-final	Preliminary	Semi-final	
FIRST-YEAR ALGEBRA											
II	6	58.0	38.6	57.5	42.8	− 4.7	85.7	54.2	86.0	61.4	− 6.9
III	4	30.8	27.4	31.3	47.0	−19.1	57.0	54.4	56.8	69.3	−15.1
IV	4	78.5	77.2	79.3	61.9	+16.1	87.0	84.7	87.3	82.0	+ 3.0
VII	8	80.5	71.6	80.3	63.3	+ 8.1	94.0	91.9	94.3	92.1	+ 0.1
VIII	5	59.8	64.8	60.0	60.6	+ 4.4	89.2	66.3	89.0	65.0	+11.1
IX	5	85.4	75.8	85.0	71.1	+ 4.3	92.2	72.6	92.2	86.0	−13.4
X	2	27.5	16.8	26.5	27.5	−11.7	76.0	71.0	76.0	98.8	−27.8
XI	4	75.8	77.3	76.3	61.6	+16.2	89.8	65.5	89.3	71.8	− 6.8
XII	8	78.6	66.9	79.3	87.4	−19.8	87.8	86.6	87.5	88.8	− 2.5
XIII	4	38.0	76.8	37.8	52.8	+23.8	68.0	85.6	67.5	78.3	+ 6.8
Total	50	Average				+0.93					− 4.5
FIRST-YEAR LATIN											
I	4	81.0	85.4	82.0	87.4	− 1.0	94.8	78.3	95.3	94.0	−15.2
IX	5	85.4	81.7	84.4	58.0	+22.7	93.2	90.0	92.6	83.2	+ 6.2
X	4	57.0	29.4	62.0	25.3	+ 9.1	88.0	69.6	85.3	62.0	+ 4.9
Total	13	Average				+11.2					−10.2
NINTH-GRADE ENGLISH COMPOSITION											
II	9	80.8	75.8	80.8	78.7	− 2.9	91.4	84.4	91.4	84.3	+ 0.1
V	4	55.0	72.1	55.0	75.6	− 3.5	79.5	73.1	78.8	88.1	−15.7
XIV	4	71.3	83.7	71.3	81.3	+ 2.4	93.8	91.1	93.8	86.7	+ 4.4
Total	17	Average				− 1.8					− 2.6

of 4.5 per cent. A similar analysis of the results in the Latin groups shows a gain for the poor groups, through supervised study, of 11.2 per cent, and a loss for the good groups of 10.2 per cent. In the English composition classes supervised study seems to have occasioned loss to both the poor and the good pupils, but more loss to the good than to the poor. The loss of the former was 2.6 per cent; of the latter, 1.8 per cent. The results are represented graphically in Fig. 1.

Results from a test by Plan II.—High School VI succeeded in arranging conditions satisfactorily and conducting the experiment under Plan II. The two classes used had enrolments of 16 and 18, and preliminary scores of 80.8 and 69.3, respectively. In the semifinal test the supervised class showed a superiority of 5.7 per cent when the results were averaged by continuous groups. Continuing with supervised study from the semifinal to the final test, after the teachers of the two classes had been exchanged, this class showed a gain, computed from the preliminary score, of 3.7 per cent; in other words, a loss of 2 per cent in the second period of study supervision. When the improvement was studied more accurately in strictly comparable groups, it was found that the supervised class showed a gain of 7 per cent at the semifinal and a loss of 2.1 per cent at the final test; in other words, a total decline, after the exchange of teachers, of 9.1 per cent. By each method of computing the results there was shown a decline in efficiency with change of teachers, indicating the importance of carefully controlling this variable.

From the preliminary to the semifinal test the poor students in these two classes gained 12.3 per cent more by supervised than by unsupervised study, while the good students lost 0.9 per cent, which is taken as additional evidence in confirmation of the finding above regarding the results of supervised study with superior and inferior pupils.

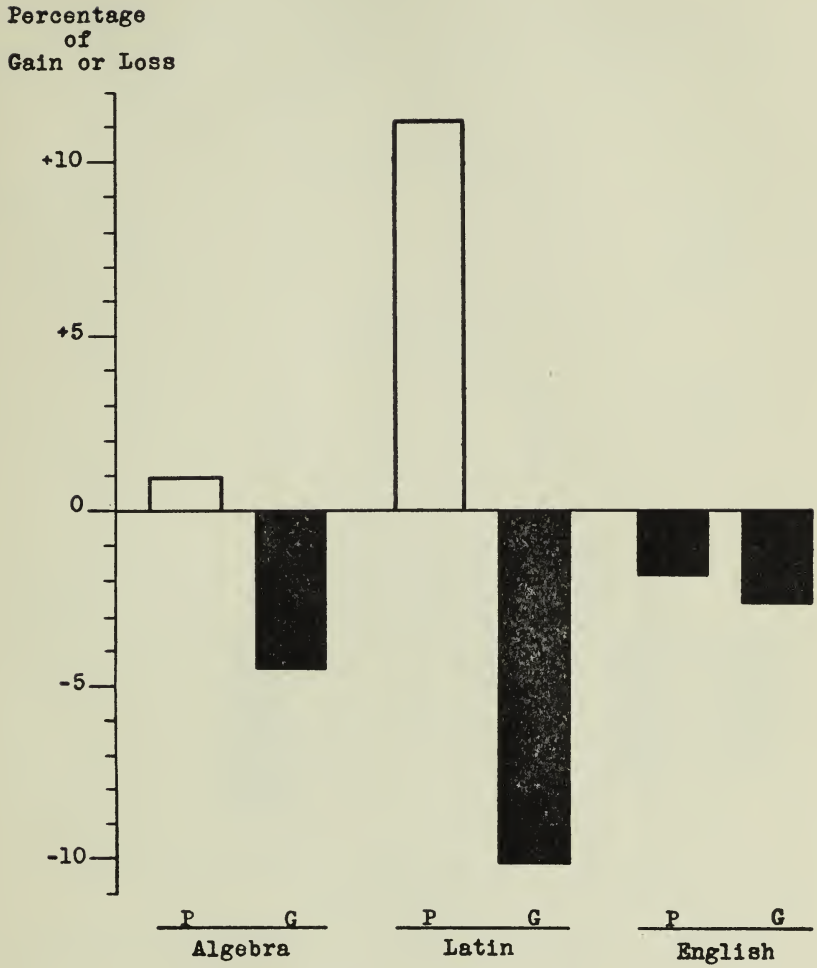

FIG. 1.—Comparative percentages of gain or loss of poor and good pupils under supervised study. The letters *P* and *G* refer to the two classes of pupils. Data in Table IX.

TABLE X

SUMMARY OF AVERAGE GAINS AND LOSSES PER PUPIL, IN PERCENTAGE, CONTINUOUS AND COMPARABLE GROUPS UNDER SUPERVISED STUDY

SUBJECT	NO. OF PAIRS OF CLASSES	PERCENTAGE OF GAIN OR LOSS	
		Preliminary to Semifinal	Semi Final to final
CONTINUOUS GROUPS			
Algebra	7	−0.2	−5.3
Latin	2	+9.0	+7.1
English	2	−4.4	−3.9
COMPARABLE GROUPS			
Algebra	7	+1.0	+2.7
Latin	2	+3.7	+5.4
English	2	−3.8	−6.1

DISCUSSION OF RESULTS

Results in terms of average improvement of continuous and strictly comparable groups.—The discussion of the foregoing results may be clarified and abbreviated if it be permitted to take as its point of departure a condensed summary of the average gains and losses of supervised study, based separately on the continuous and strictly comparable groups previously described. A summary of this sort is provided in Table X. The improvement percentages, it will be noticed, are all in terms of supervised study and each represents loss or gain in a particular subject for a particular period.

Since the computations based on comparable groups seem somewhat more reliable than those based on continuous groups, interpretations based on these comparable-group percentages will probably be more secure. Losses and gains by the two methods, however, correspond in kind at every point except one. According to the comparable-group values, supervised

study in algebra showed a relative gain of 1 per cent during the first period of the experiment, and a relative loss of 2.7 per cent during the second period, a loss noticeably greater in amount than the earlier gain. The results for continuous groups are represented graphically in Fig. 2, and for strictly comparable groups in Fig. 3.

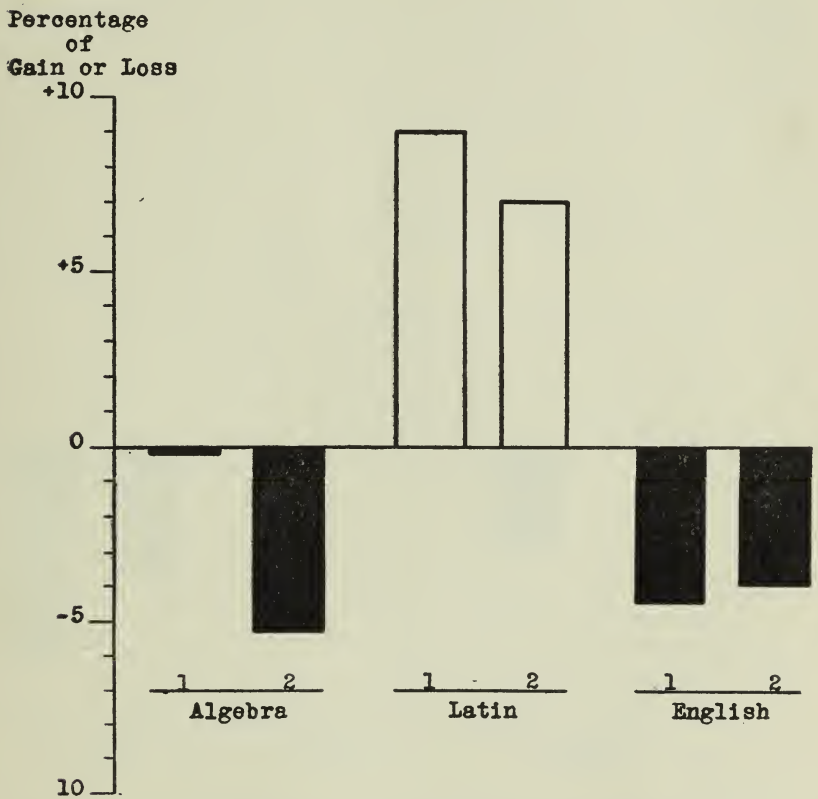

FIG. 2.—Average percentage per pupil of gain or loss under supervised study based on continuous groups. Numbers 1 and 2 refer to the first and second periods of the experiment. Data in Table X.

This is precisely what Breslich found when he reversed the methods in his sections and continued his study for six lessons. There was a slight gain for the section that had supervised study during the first period, and a considerable loss for the section that had it during the second period. Breslich

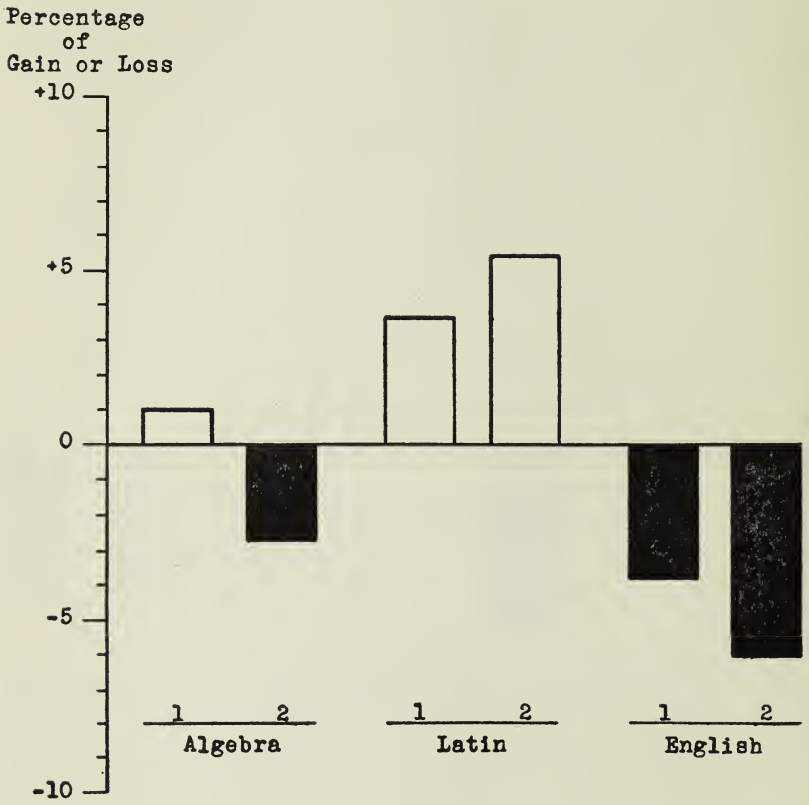

FIG. 3.—Average percentage per pupil of gain or loss under supervised study based on comparable groups. Numbers 1 and 2 refer to the first and second periods of the experiment. Data in Table X.

expressed the opinion that the power gained by the supervised section during the first period persisted and was strong enough to be thus helpful in the following period. Inasmuch as the second period in his experiment was not quite half so long as the first, thus conceivably giving the persistence effect an opportunity to operate near its maximum before the effect of supervision had reached a maximum in the other section, this interpretation may be the correct one. It would be unsafe, however, for teachers to generalize this conclusion. The facts provided in Table X may easily become the basis for a different interpretation. Comparing the improvement percentages for the two periods of the experiment by both methods of computation in all subjects, one finds it to be the rule rather than the exception that if supervised study gained in the first period, it gained also in the second; if it lost in the first period, it lost also in the second.

In the opinion of the writer it seems more consistent with the facts of this experiment to attribute the gains and losses of the second period to the effects of the immediate application of methods rather than to the "persistence" of effects of remote applications. For, note the results bearing on this point in subjects other than algebra. In the Latin classes there was a marked gain for supervised study during both periods of the experiment, 3.7 per cent during the first period and 5.4 per cent during the second period. In the English composition classes the loss through supervised study was marked during both periods of the experiment, being 3.8 per cent during the first and 6.1 during the second.

In sum, then, the facts of the present experiment indicate that supervised study of the type tested, when measured on the basis of average results for whole classes, was slightly less efficient in first-year algebra, was much less efficient in ninth-grade English composition, and was much more efficient in first-year Latin, than non-supervision.

These results are not construed as a condemnation of supervised study in algebra, or even in English composition. It remains to be determined what effectiveness supervised study will develop in these branches under other plans, or under the same general plan, when teachers have become more complete masters of the necessary technique. On the other hand, the writer believes that these results may well be interpreted as revealing: (1) a need for caution against a general assumption of the effectiveness of the divided- and double-period plans of supervised study; (2) a need for the development of special technique on the part of teachers supervising study.

Results in terms of the average improvement of poor and good groups.—Breslich's is the only previous experimental investigation in the field of secondary education that is informative regarding the relative improvement of bright and dull pupils under supervised study. "The poor pupils profited particularly by this method," wrote Breslich, but no special comment was made concerning the progress of good pupils. A casual inspection of the scores of the initial and final tests for the first period of his experiment leads one to suspect that the loss of the good pupils was quite as great in amount as the gain of the poor ones. The distribution of his scores is reproduced in Table XI. It will be noticed that the two classes, A and B, one being unsupervised, the other supervised, started in the experiment with about equal percentages of A's and B's, Class A having 25 per cent A's and 25 per cent B's, while Class B had 29.4 per cent A's and 23.5 per cent B's. In the final test the percentage of A's for the two classes was 7.1 and 0, respectively; of B's, 21.4 and 6.2, respectively, the supervised class showing the greater loss.

It is possible to get some notion of the ratio between the amount of gain of the poor and the amount of loss of the good students by a comparison of the credit points of these two

groups, calculated from the percentage distribution of marks. Such a calculation is presented below. For this calculation two assumptions were made: (1) that the marks, A to F, inclusive, cover equal distances on the marking scale; (2) that

TABLE XI

DISTRIBUTION OF SCORES IN BRESLICH'S EXPERIMENT

CLASSES	MARKS					AVERAGE SCORE
	A	B	C	D	F	
PRELIMINARY SCORES						
A Unsupervised....	25	25	37.5	12.5	0	81.4
B Supervised.....	29.4	23.5	23.5	17.7	5.9	79.4
SEMIFINAL SCORES						
A Unsupervised....	7.1	21.4	21.4	0	50	62.8
B Supervised.....	0	6.2	37.5	25	31.2	65.5

the value of A is to the value of E as 2 to 1. The first assumption simply reflects one of the commonest requirements of a good scale; the second, a very conservative estimate of the degree of difference between the poorest and the best students in the classes, based on actual studies in educational measurement. The credit points based on these assumptions were: A, 4; B, 3.5; C, 3; D, 2.5; E, 2. Percentages representing the number of pupils obtaining each grade were converted into credit points for the better and poorer 50 per cent of the pupils in each class for both tests. It was found in a comparison of the credit points of the poor groups in the two classes that the poor group in the unsupervised class lost 16.2 more credit points than the poor group in the supervised class. When a similar comparison was made for the good groups in the two

classes, it was found that the good group in the supervised class lost 19.75 more credit points than the good group in the unsupervised class. That is, according to this estimate, the good pupils sustained a loss through supervised study 1.2 times the amount of the gain of the poor pupils.

These results are consistent with the results presented in Table IX concerning gains and losses of good and poor groups in algebra. The poor groups in this subject gained, it will be recalled, but the good groups lost relatively more.

The experimental results available show conclusively, to the mind of the writer, that supervised study, in the form, and under the conditions tested, has retarded the progress of the better pupils and in general facilitated the progress of the poorer ones. From the standpoint, therefore, of the results obtained in a comparison of the progress under supervised study of the better and poorer halves of classes, the educational public should be warned of the possible loss in achievement of the better pupils through certain plans of supervised study. The general adoption of the divided-period plan, now probably the most widely used, cannot be urged for classes as wholes, without an improvement in technique that will lead to a demonstrable improvement in results. Until the divided-period plan meets the objections urged against it, some selective or differential plan of study-supervision should be recommended for secondary schools, and is so recommended by the writer.

A plan that selects the retardates and places them in special classes for study-supervision should improve on the present situation. This plan is already in operation in certain well-conducted secondary schools. Where supervised study is operated according to this plan, the better pupils are released from a method that demonstrably occasions loss in certain studies, and the poorer pupils work under a method which according to experimental results, promises gain for them

Later experiments with technique, accompanied by exact measurements of results, in various branches of study, should enable the schools to determine specifically in what subjects and by what plans study-supervision is profitable to each of the groups mentioned. Meanwhile segregation for purposes of study-supervision and differential treatment of the two groups in the course of the supervision seem to be the better policy.

SUMMARY

1. The method employed was experimental and comparative.

2. Satisfactory reports were obtained from 596 pupils in 34 classes, in 3 subjects and 14 high schools.

3. The test papers were scored both by the teachers of the classes and by competent paid laboratory scorers.

4. Three sets of averages were computed, one from the teacher's scores, another from the laboratory scores, and a third from the other two. The last, termed the combined score, was regarded as the most reliable basis of conclusions.

5. On the basis of combined averages for continuous groups it was found that:

a) Ten supervised first-year algebra classes showed a relative loss of 0.1 per cent, compared with ten unsupervised classes.

b) Three supervised classes in first-year Latin showed a relative gain of 10.3 per cent, compared with three unsupervised classes.

c) Three supervised ninth-year English composition classes showed a relative loss of 2.9 per cent, compared with three unsupervised classes.

d) Of fourteen algebra classes which continued through both periods of the experiment, seven supervised classes showed a relative loss of 0.2 per cent during the first

period; the other seven, supervised during the second period, showed a relative loss of 5.3 per cent.

e) Of four Latin classes which continued through both periods of the experiment, two supervised classes showed a relative gain of 9 per cent during the first period; the other two, supervised during the second period, showed a relative gain of 7.1 per cent.

f) Of four English composition classes which continued through both periods of the experiment, two supervised classes showed a relative loss of 4.4 per cent during the first period; the other two, supervised during the second period, showed a relative loss of 3.9 per cent.

6. On the basis of combined averages for strictly comparable groups it was found that:

a) Ten supervised first-year algebra classes showed a relative loss of 1.2 per cent, compared with ten unsupervised classes.

b) Three supervised first-year Latin classes showed a relative gain of 7.5 per cent, compared with three unsupervised classes.

c) Three supervised ninth-grade English composition classes showed a relative loss of 2.7 per cent, compared with three unsupervised classes.

d) Of the fourteen algebra classes which continued through tho bperiods of the experiment, seven supervised classes showed a relative gain of 1 per cent during the first period; the other seven, supervised during the second period, showed a relative loss of 2.7 per cent.

e) Of the four Latin classes which continued through both periods of the experiment, two supervised classes showed a relative gain of 3.7 per cent during the first period; the other two, supervised during the second period, showed a relative gain of 5.4 per cent.

f) Of the four English classes which continued through both periods of the experiment, two supervised classes showed a relative loss of 3.8 per cent; the other two, supervised during the second period, showed a relative loss of 6.1 per cent.

7. From a study of the progress of poor and good pupils the method of strictly comparable groups, it was found that:

a) In six of ten pairs of poor groups in algebra supervised by study was superior.

b) The ten supervised poor groups in algebra showed an average improvement 0.93 per cent greater than the ten unsupervised poor groups.

c) In four of ten pairs of good groups in algebra supervised study was superior.

d) The ten supervised good groups in algebra showed an average improvement 4.5 per cent less than the ten unsupervised good groups.

e) Three supervised poor groups in Latin showed an average improvement 11.2 per cent greater than three unsupervised poor groups.

f) Three supervised good groups in Latin showed an average improvement 10.2 per cent less than three unsupervised good groups.

g) Three supervised poor groups in English showed an average improvement 1.8 per cent less than three unsupervised poor groups.

h) Three supervised good groups in English showed an average improvement 2.6 per cent less than three unsupervised good groups.

CONCLUSIONS

The preceding summary comprises the essential factual results of this investigation in so far as the methods employed and the care with which they were applied were able to reveal the facts. Making this summary statement of fact has been

neither difficult nor dangerous. Quite different any attempt to interpret the meaning of the facts for the reader. But it is perhaps not so difficult or dangerous for the experimenter to make the attempt as it is for the casual reader, and if one does not venture an interpretation, the other is almost sure to. The writer, therefore, feels justified in expressing the following opinions which he believes the facts regarding the divided- and double-period plans of supervised study warrant:

1. On the basis of average results for whole classes, supervised study of the type tested was slightly less efficient in first-year algebra, was much less efficient in ninth-grade English composition, and was much more efficient in first-year Latin, than non-supervision.

2. Supervised study of the kind tested facilitated the progress of the poorer pupils, and to a correspondingly greater degree retarded the progress of the better pupils.

3. The divided- and double-period plans should not be urged for general adoption in secondary schools until their efficiency is more clearly demonstrated.

4. Until the divided- and double-period plans meet the objections urged against them, a selective or differential plan of study-supervision should be favored by secondary schools, that is, a plan which concentrates on the pupils of less ability.

5. The technique of supervising the study of the poorer pupils needs to be improved; a technique of supervising the study of the brighter pupils needs to be developed.

INDUSTRIAL EDUCATION IN ILLINOIS UNDER THE SMITH-HUGHES LAW

E. A. WREIDT
State Supervisor of Industrial Education, Springfield, Illinois

FUNDS RECEIVED AND DISBURSED

For the past year, ending June 30, 1918, Illinois received a total of $93,772.25 as its allotment under the appropriations made by the Smith-Hughes federal law on vocational education.

This allotment covers three funds: one for industrial and home economics education, one for agricultural education, and one for the training of teachers in agricultural subjects, home economics subjects, and industrial subjects.

The fund for industrial and home economics education amounted to $41,105.92. Of this amount, the State Board used $9,977.52 to pay one-half of the salaries of teachers of industrial and home economics classes in seven school districts in the state. The unexpended balance in this fund, amounting to $31,128.40, returns to the United States Treasury.

Of the total allotment to Illinois, $93,772.25, the State Board was able to use $26,476.16, leaving a total unexpended balance of $67,296.09, which returns to the United States Treasury.

The relatively small amounts distributed by the State Board for 1918 are explained by the fact that active promotional work could not be begun before March, 1918. By this time more than half of the school year had passed, and local school authorities found it difficult, and in many cases impossible, to adjust school programs to meet the requirements of the state plans. The courses which the State Board has approved for reimbursement for the past year are therefore in nearly all cases courses established with no thought of meeting

the state requirements. They are courses which have been in operation a long time, in many cases, and have been found to to measure up to the requirements of the state plans.

SCHOOLS AND CLASSES REIMBURSED

In the field of industrial education reimbursement was granted in 1918 to one full-time or all-day trade school with an enrolment of sixteen pupils; 1919 will show this extended to six full-time trade schools at present in operation and in all probability to three others about to be established, making a total of nine schools in four cities. The year 1918 showed nine part-time trade extension classes for apprentices in skilled trades, in two cities; 1919 will show twelve part-time classes of this order in five cities. Again, last year there were two part-time general continuation classes for boys fourteen to sixteen years old at work in less skilful occupations. This year already shows an increase in such classes from two to thirteen, with a probability that eight additional classes will be established very soon. The number of cities involved increases from two to seven. The twenty-six evening trade extension classes for adults occupied during the day will increase from twenty-six of last year to at least sixty classes in eight cities in 1919. Grand total enrolment in all industrial classes of 1,221 in 1918 will probably be trebled in 1919.

Detailed descriptions which follow in this article concern themselves with the classes and courses which were in operation in 1918.

Full-time schools.—The first full-time school is a machinist trade school established in Peoria about February 1, 1918, partly as the result of an industrial survey made by the Peoria Association of Commerce, the public-school authorities, and Bradley Polytechnic Institute, in co-operation with the United States Bureau of Education. One of the recommendations of this survey was that a machinist trade school should be established. The co-operation of the union of machinists in

Peoria was secured in the organization of the school. The trade course is conducted in the manual-training high school under the direction of the regular high-school principal and superintendent of schools.

The course of study covers two years, 30 clock hours a week, one-half of the time being given to machine-shop practice under the instruction of a man who has had three years of teaching experience in high school and twelve years of experience as a machinist.

The shopwork is on a productive basis, projects made including machines, machine parts, and tools for the use of the school. In addition to the machine-shop practice the curriculum includes related trade subjects, namely, trade drawing, trade mathematics, trade science, and non-vocational subjects, namely, English, civics, and industrial history.

The 16 pupils enrolled are all graduates of the elementary school and were selected from a group of 32 applicants. Four instructors are employed. The machine-shop instructor devotes one half of his time to this course, the remaining half being given to instruction of regular high-school pupils. Each of the other three instructors gives 60 minutes each day to the machinist course, the remaining portion of his day being devoted to regular high-school pupils. In granting reimbursement for one-half of the salaries of these teachers, the State Board has prorated the salaries on the basis of the proportionate amount of the school week which each instructor devotes to the machinist trade course.

Part-time trade extension classes.—For six years Moline has been conducting a part-time trade extension class for apprentices in the machinist and pattern-making trades. The class was originally organized under the auspices of the Tri-City Manufacturing Association. It is now conducted under the auspices of the Board of Education of Moline.

During the year 1917–18, 92 apprentices were enrolled. Each apprentice attends the part-time school one-half day a week for the school term, being paid by his employer for the time spent in school. The classes are limited to 10 apprentices and meet in an elementary-school building. Sessions are held each morning and afternoon except Wednesday and Friday afternoons, when the instructor visits the factories having apprentices enrolled in the school. Eleven different factories were represented by apprentices in the school last year.

The subjects taught are trade drawing, blueprint reading, English, including civics and industrial studies, and shop mathematics, including arithmetical operations and the elementary portions of applied algebra, applied geometry, and applied trigonometry.

One instructor does all the teaching and gives his entire time to this work. He is a graduate of the University of Illinois, has done some postgraduate work, and has had about five years of practical trade experience. The present instructor has been in charge of the school since its organization in 1912 and has done pioneer work in developing a course of study adapted to the needs of apprentices. The course has heretofore included 126 clock hours for each year, but the school authorities were glad to lengthen the course by 18 hours in order to meet the minimum of 144 hours per year required in the state plan.

Since March 4, 1918, the Rockford Board of Education has been conducting three types of part-time classes: type one is for boys at work between the ages of fourteen and sixteen who attend the part-time school eight hours each day for two weeks and return to work for the following period of two weeks; type two is for boys at work between fourteen to sixteen years of age who attend school a half-day every day and return to work for the other half-day each day; type three is for boys over sixteen years of age at work in the machinist trade, in drafting, and in electrical work. Types one and two are general

continuation part-time classes; type three is a trade extension part-time class. In all three types of classes the instruction is to a large extent individual.

The trade extension part-time class, type three, was formerly conducted under private auspices, but was taken over by the Board of Education on March 4, 1918. About 60 pupils were enrolled in this class last year. The subjects in the course of study are trade drawing, trade mathematics, English, civics, history, and discussion of the tools, machines, processes, and materials in machinist and electrical work.

Four instructors give their entire time to teaching in the trade extension course and in the two general continuation courses. All of these instructors have had at least two years of college training and considerable practical experience. One is a college graduate and another is a graduate of an engineering school.

During the past year Chicago conducted seven part-time trade extension classes; one for apprentices in electrical work, one for machinist apprentices, one for carpenter apprentices, one for sheet-metal apprentices, one for jeweler apprentices, one for baker apprentices, and one for plumber and gasfitter apprentices. These seven courses were conducted in three of the regular high schools in Chicago. One of the courses, that for carpenter apprentices, has been in operation since 1901. Other courses have been in operation a number of years.

All the courses are conducted by the Board of Education of Chicago, and in most cases agreements are made between associations of employers and employees requiring the apprentices to attend. With a few exceptions there is no deduction from the wages of the apprentices for the time spent at school.

Apprentices attend school one or two half-days a week except in the case of the carpenter-apprentice school, which is in session six hours a day, five days a week for twelve weeks during January, February, and March, which is the dull

season in the carpenter trade. This carpenter-apprentice school, although it is a full-time all-day school for the twelve weeks in which it is in session, is nevertheless classified under the Smith-Hughes law as a part-time school for the reason that the apprentices give a part of their working-year to school attendance.

The course of study in these part-time trade extension courses includes, for the jeweler apprentices for example, instruction in practical trade processes only; for baker apprentices, instruction in practical trade processes and in related trade subjects, such as chemistry for bakers; for the machinist apprentices, related trade subjects, such as trade drawing and trade mathematics, and non-vocational subjects; for the carpenter apprentices, shopwork in carpentry, related trade subjects, such as trade drawing and trade mathematics, and non-vocational subjects, such as English and history.

Teachers experienced in the trade are in charge of all the instruction in practical trade subjects. For the related trade subjects, such as shop mathematics and shop drawing, the instructors have either had extensive experience in the trade or have had extensive training in technical subjects and have developed the ability to relate the instruction to trade needs.

Part-time general continuation classes.—Only two part-time general continuation classes received reimbursement from the State Board in the past year. These two classes were conducted by the Board of Education of Rockford. As already explained, they were started March 4, 1918, and are intended for boys between the ages of fourteen and sixteen who have left school for work on work permits. The boys in this school are organized into two types of classes: first, a group which attends school on full time for two weeks and returns to work for the following two weeks on full time; second, a group which attends school one-half day each day and returns to work for the remaining half-day each day.

In this general continuation school instruction is given in the following subjects: mechanical drawing, applied mathematics, civics, English, and vocational guidance. Vocational guidance here includes a discussion of the opportunities, advantages, disadvantages, and qualifications required for employment in machine, electrical, woodworking, automobile, and other trades and industries. It also includes visits to factories and some shopwork in the school shops.

Evening trade extension classes.—Chicago is the only city to receive reimbursement during the past year for evening trade extension courses, twenty-six classes receiving aid the past year. The courses included three classes in electrical construction, one for machinist apprentices of a locomotive repair-shop, eleven in general machine-shop practice, two in blacksmithing and toolmaking, two in trade drawing, one in machine design, two in baking, and one in foundry. These twenty-six classes were conducted in five different high-school buildings.

In all cases the students enrolled were engaged in the day time in work to which the instruction in the evening classes was strictly supplementary. The instructor in all cases has had extensive trade experience and wide teaching experience.

PROSPECTS FOR THE CURRENT YEAR

Full-time schools.—The machinist trade school in Peoria is being continued this year.

Rockford has started a machinist trade school with the opening of the current school year.

Chicago is considering several full-time or all-day trade courses for the present year: courses in mechanical drafting and in the electrical and machinist trades for boys, in the dressmaking and glovemaking trades for girls, and a course in architectural drafting in the fourth year of the high-school curriculum.

Rock Island is considering a one-year full-time course in mechanical drafting.

Geneseo is considering the establishment of a trade school of the general industrial type to prepare students to engage in general woodworking in the community and in occupations which require skill in closely related woodworking trades, such as carpentry, cabinet-making, and millwork. Such a trade school is called a general industrial school to distinguish it from what is called a "unit-trade school." The unit-trade school is appropriate for larger industrial centers where the trades are highly specialized. It provides for a given group of pupils instruction in one trade only. The general industrial school, on the other hand, furnishes to a group of pupils instruction in two or more closely related trades. Such a school is suitable in smaller industrial centers where combination workers are needed with a knowledge of two or more closely related trades.

Part-time classes.—In Moline the trade extension part-time school is being continued.

In Rockford the trade extension and the general continuation part-time classes for boys will be continued. Rockford is also considering the establishment of general continuation classes for girls between the ages of fourteen and sixteen, so that the girls may have the same opportunities as the boys in this age group now have.

LaSalle has started a trade extension part-time course for machinist apprentices.

Rock Island has in the past conducted a part-time trade extension course for carpenter apprentices, the classes meeting in January, February, and March. The supervisor was unable to visit this school last year before it closed for the year, and is unable to say positively that the school will be resumed this year. Rock Island is also considering the establishment of part-time classes in salesmanship for girls employed in department stores.

Alton, at the time of the supervisor's last visit, was definitely considering the establishment of general continuation part-time classes for boys and girls between the ages of fourteen and sixteen.

All of the seven trade extension part-time classes in operation in Chicago last year will probably be continued this year. In addition, Chicago has started what may be called a trade preparatory part-time class for workers on automatic screw machines. This class was begun as a war-emergency class to meet the needs of Chicago factories having war contracts. According to the arrangements made for these classes, men who had had little or no previous experience in the operation of automatic screw machines were to be hired by the employers, placed on the company pay-roll, and were to be sent at once to the school to receive training. The men were to spend in school eight hours each day, five and one-half days a week, for several weeks, all of this time under pay from the employers. At the end of their period of school training they were to begin regular employment in the factory. Notwithstanding the fact that in this school the men give their entire time to school work, the school is classified as a part-time school under a recent ruling of the Federal Board for Vocational Education, on the ground that the men are definitely scheduled for employment before beginning the school work and hence are giving a part of their working-year to school attendance.

During the past few years Chicago has been conducting a number of part-time schools giving instruction in commercial subjects, such as bookkeeping, stenography, and other office work. Before July 1, 1918, the Federal Board had ruled that federal money could not be used for instruction in commercial subjects, but since that date it has modified its position and now rules that instruction in commercial subjects may be given in part-time classes. This ruling of the Federal Board very greatly extends the opportunities for part-time instruction

in the state, especially in the larger cities where there is great need and opportunity for part-time instruction in salesmanship and other commercial subjects.

Chicago has been conducting four such part-time commercial schools for persons employed in the offices of the packing companies in the stockyards district; also one large part-time commercial school in the downtown office district of the city for persons employed in offices and for persons seeking office employment.

Springfield has during the past year been conducting part-time classes giving instruction in commercial subjects to women and has recently established part-time general continuation classes for boys and girls between the ages of fourteen and sixteen years who left school before completing the eighth grade. These general continuation classes meet Saturday mornings from 8:00 to 12:30 in the high-school building and receive instruction in English, arithmetic, citizenship, hygiene and elementary science, shopwork for boys, and cooking and sewing for girls. Where employers desire it, arrangements have been made for pupils in the regular day schools to work Saturday mornings in the shops and stores in the places left vacant by the continuation-school pupils.

The type of organization established in Springfield for the general continuation classes may be suggestive to others considering the formation of such classes. The problem of securing teachers is simplified by the fact that the classes meet Saturday morning when the teachers are free from their regular teaching work. All the shop and laboratory equipment of the high school is also available on Saturday morning. The pressure upon employers caused by employees attending continuation school on working time may also be relieved by the fact that on Saturday mornings the regular day-school pupils are free to take the places of such employees.

The great need of the hour in the field of industrial education is the establishment of part-time schools throughout the state. When local school authorities are first approached regarding industrial courses, they are as a rule most interested in full-time or all-day schools. On mature consideration, however, they are readily convinced that there is a relatively limited need for the highly specialized all-day trade school meeting the requirements of the Smith-Hughes law. Such full-time schools are needed mainly in the larger industrial centers.

On the other hand, the need for part-time schools is widespread. This is especially true for part-time classes of the general continuation type for persons fourteen to sixteen years of age who are in unskilled or semi-skilled occupations and who need a continuation of their general education in subjects which are designed to promote good citizenship and in subjects which are related as closely as possible to their daily work or to the occupation which they desire to follow in the future.

The interest in part-time continuation classes is spreading rapidly throughout the state. The Committee on Children in Industry of the State Council of Defense has a paid worker who has been visiting many of the cities in the state in an attempt to interest these cities in the establishment of part-time general continuation classes for boys and girls at work between fourteen and sixteen years of age. This committee is also endeavoring to promote the establishment in these cities of a vocational guidance or an employment supervision bureau.

The Illinois Federation of Women's Clubs, through its committees on education throughout the state, is also endeavoring to enlist the co-operation of employers and school authorities in the establishment of part-time continuation classes for boys and girls at work between fourteen and sixteen years of age.

Evening classes.—Chicago was the only city which received reimbursement for evening classes last year. Such classes in operation in some half-dozen other cities in the state were discontinued before the supervisor had an opportunity to pay them a formal visit. There are many industrial communities in the state which should offer evening classes in trade extension subjects, especially in trade drawing.

Teacher-training courses.—An important part of a state program for industrial education is the early establishment of training courses to prepare teachers. For the practical subjects and for the related trade subjects in industrial schools and classes teachers are needed who have had considerable experience in the trades and who also know how to teach. The combination is not easily obtained. Persons who have had extensive practical experience in the trades have not always had much general education, and only in rare cases have they had experience in teaching or preparation for teaching. On the other hand, many of the experienced teachers in the state lack the important qualification of extensive practical experience in the trades. Hence it is necessary in the early stage of a state program for industrial education to establish training courses to prepare teachers of the practical trade subjects and of the related trade subjects.

Two types of such teacher-training courses have already been started in Illinois. One was conducted at the University of Illinois in the summer session of 1918. To this course persons were admitted who had had practical experience in woodworking trades and who also had some teaching experience in woodworking trades and who also had some teaching experience in elementary or high school. Two courses or subjects were offered: one course on the principles of woodworking, including practice in university shops; and a course on "industrial education," a lecture course dealing with the aims, objectives, and methods of industrial education and the operation of the federal law on vocational education.

The other teacher-training course thus far established is an evening course conducted in Chicago by the University of Illinois. To this course are admitted men who have had at least two years of journeyman experience in the machinist trade and whose general education is at least equivalent to that of the elementary school. The classes meet two hours an evening, three evenings a week, twenty weeks a year for two years, a total of 240 clock hours. Instruction is given in trade drawing, trade mathematics, trade analysis, trade science, industrial geography, industrial history and citizenship, sanitation and safety, industrial education, English, and supplementary shopwork. Observation and practice teaching are required, the regular evening trade extension classes in the Chicago schools being utilized for this purpose by courtesy of the Board of Education of Chicago. Additional evening teacher-training courses for shop teachers will probably be established in the near future for other trades and in other industrial centers in the state.

Plans are also under consideration for training courses to prepare teachers of related subjects such as trade drawing, trade mathematics, and trade science, and for training courses to prepare teachers of general continuation subjects or general education subjects in part-time and full-time schools. Although the state plans for these training courses are not yet matured, the requirements for graduation must include the completion of four years of high-school work and at least two years of college work in order to meet the standards fixed by the State Board for the qualifications of teachers of related and general education subjects. Observation and practice teaching will be an essential part of all teacher-training courses.

Educational News and Editorial Comment

THE CHICAGO MEETING OF THE NATIONAL ASSOCIATION OF SECONDARY SCHOOL PRINCIPALS

The four sessions of the meeting of the National Association of Secondary School Principals were all very well attended. About four hundred high-school principals registered as delegates to the meeting and the audience room was crowded beyond its seating capacity. The Association is gaining very rapidly and has undertaken several lines of productive work. Principal W. D. Lewis, William Penn High School for Girls, Philadelphia, Pennsylvania, in the president's address "Student Participation in School Organization and Government as a Training in Democracy," made some very sensible and concrete suggestions for developing leadership in routine high-school work. The salient features of the report on "Cardinal Principles in Secondary Education" were presented by

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Clarence D. Kingsley, State High School Inspector of Massachusetts. "The Place of the Modern Secondary School in a Democracy" was discussed by Principal J. N. Rule, Schenley High School, Pittsburgh, Pennsylvania. The first session on Monday afternoon was closed by the vigorous presentation by Principal H. B. Loomis of Hyde Park High School, Chicago, Illinois, of "What Democracy Should Demand of Her High Schools."

At the dinner of the Association held at the Stratford Hotel the general topic was "Social Science." There were two speakers. Professor McLaughlin of the University of Chicago spoke on the value of history in the schools. He emphasized the importance of instruction in methods of thinking as distinguished from instruction in mere subject-matter. He commented on the freedom of the modern course of study and pointed out the vindication which American education had received during the war.

Professor Judd reported for the Committee on Social Sciences in the High School. By means of quotations from numerous reports received from high-school principals it was shown that there is no agreement as to the relation of history to the other social sciences. Some high-school officers would leave social science entirely in the hands of teachers of history; others would separate the two lines of work. A description was given of some of the courses in civics and economics offered in high schools. The committee asked to be continued for the purpose of collecting and making widely accessible such syllabi and courses of study as are in use in high-school courses in the social sciences. It also asked for co-operation in finding people who can be encouraged to prepare new material to be used in classes in the social sciences. The Association continued the committee.

The third session Tuesday morning was devoted to "The Curriculum." Principal William A. Wetzel of Trenton had a

very interesting account of his successful experiment with "tinker shops" in the junior high school. A place in the curriculum for courses in social sciences was warmly advocated by Principal Thomas J. McCormick of LaSalle, Illinois. The dominant note of the meeting was the demand for more social-science courses in secondary curricula. The Committee on Curriculum made its annual report through its chairman, Principal Edwin L. Miller, Northwestern High School, Detroit.

The Tuesday afternoon meeting considered matters of "Administration." Dr. Thomas H. Briggs, Teachers College, Columbia, showed that individual differences demand for efficiency homogeneous groupings. The methods for bringing about this adjustment were detailed. Mr. Sterling Leonard of the English department of Lincoln School, Teachers College, laid down at great length the lines along which "The Socialized Recitation Can be Used in High-School Subjects." Principal M. R. McDaniel gave a large number of concrete and tested plans for developing "School Morale." A plan to facilitate the transferring of students from one high school to another and to college was expounded by Principal L. W. Smith of Harvey, Illinois. A committee was appointed to study the matter and submit a "Uniform College Certification Blank."

At the business meeting a project to establish a high-school honor society was set on foot, a committee to confer with representatives from the War Department in regard to Junior R. O. T. C. was appointed, and a committee on military training was instructed to obtain information on military training in secondary schools and report at the meeting in 1920. This latter committee in seeking its status was made a sub-committee of the Committee on Physical Training. Principal W. A. Bailey of Kansas City, Kansas, was elected president, Principal Edward C. Zabriskie, Washington Irving High School, New York City, vice-president, and Principal H. V.

Church, J. Sterling Morton High School, Cicero, Illinois, secretary-treasurer. The executive committee is Principal Jesse B. Davis, Central High School, Grand Rapids, Michigan; Principal E. T. Eaton, West High School, Des Moines, Iowa; and Principal W. D. Lewis, William Penn High School for Girls, Philadelphia, Pennsylvania.

H. V. Church

SUPERINTENDENT CHADSEY OF CHICAGO

The commission of nine citizens appointed by the Board of Education of the city of Chicago to nominate a superintendent of schools completed its work late in February and turned in a unanimous report in favor of Charles E. Chadsey. Mr. Chadsey agreed to accept the appointment if the Board adopted the report of the commission, and on March 5 the Board of Education by a vote of 11 to 4 appointed him superintendent.

The work of the commission is notable for several reasons. In the first place, it was carried through without conceding to persistent and powerful pressure brought upon it to nominate a local man. The commission held that its duty was to find the best man in the country and in its quest it came upon a superior man outside of Chicago. True to its mission, it selected this superior man. The Board of Education was appealed to by the same agencies which had tried to influence the commission. That the Board could hardly have resisted the pressure if it had not had behind it a commission whose impartiality was above all question was manifested during the interval between the announcement of Mr. Chadsey's name and the election by the Board.

In the second place, the concentration of attention on the single problem of finding a superintendent which was possible in the commission would hardly have been possible in the Board. The commission held twenty-five meetings. During

these meetings it consulted with forty-one persons whose advice it sought in its canvass of candidates. It met all the leading members of the Chicago school system and a number of the leading educators of the country. It also secured the advice through correspondence of a very large number of leading educators. Seldom if ever have so much time and energy been devoted to the selection of a head for a school system.

The third statement which can be made with regard to the work of the commission will hardly be appreciated in full by anyone who has not lived in Chicago. The schools of Chicago have been dragged back and forth through the mire of politics so long that there are many people who have come to regard corruption of some kind as a natural accompaniment of every happening in this unhappy school system. A recent editorial in one of the leading school journals of the country prophesied that no good superintendent would accept the Chicago position. The commission was able because of its character and its methods to persuade one of the best school men in the United States to accept the position. There must have been in the conferences which led to this decision on Mr. Chadsey's part a freedom from the usual Chicago politics which promises much for the future. Mr. Chadsey has demonstrated in the next most difficult school situation which the country afforded that he is superior to politics. He has swept Detroit clean. He was in a position which no man would willingly leave, for he was complete master of the situation in Detroit. It is doubtful whether he could have been moved to Chicago if he had not been assured of the backing of a group of citizens who are superior to politics of every type.

The experience of Chicago with its commission of citizens is most encouraging. No more worthy choice could have been made; no more clear-cut demonstration could have been given that a city is fundamentally sound in its judgments about schools and their needs.

COMMENCEMENT ORATIONS

The *School Review* received recently from one of the leading high-school principals of the country a letter couched in such violent terms that it does not dare to print the letter. There are delicate legal problems of libel which are beyond the intelligence of the editors and quite beyond the possibilities of a simple schoolman's purse. The letter ends with the question whether we can do something to protect the honesty of school boys and girls against influences which our correspondent characterizes in unmeasured terms. We are willing to do all we can to protect boys and girls. We are quite willing to quote, therefore, that portion of the letter which reports certain facts. The quotable paragraph is as follows:

> The president of the graduating class has just brought to me a letter which he has received from the Standard Educational Service Company, Lock Box 387, Philadelphia, Pa. This letter makes a very strong appeal to the members of the graduating class who have orations, class day exercises and graduation essays to select their topics from the printed list and send in an order for these compositions at one dollar each.

Our suggestion is that as many school people as feel moved to do so take steps to warn parents and pupils of the moral obliquity of presenting orations purchased from such agencies. Moral suasion of a type which we are advised is quite legal could perhaps be exercised on the agency itself if various school people throughout the country would write in sealed envelopes (not on post cards) their views with regard to the purchasing of graduation orations and send them to the address indicated in the above quotation.

NATIONAL SOCIETY FOR VOCATIONAL EDUCATION

Representatives of vocational education from all parts of the United States gathered in St. Louis, Missouri, February 20–22 for the twelfth annual convention of the National Society for Vocational Education. Like other educational meetings of the year, a large part of the program was devoted to a discussion of experiences growing out of the war and to an

attempt to carry over into reconstruction such lessons from the war as can improve education. Especial attention was given to the problem of rehabilitation of wounded soldiers, to the permanent effects of the participation of women in industry during the war emergency, and to the general effect of the special trade training which was organized by the War Department upon general trade and industrial training. The administration of the Smith-Hughes act was discussed from the point of view of state programs for vocational education with special stress on course of study and provision for the training of teachers.

The morning sessions were devoted to general discussions and the afternoons were turned over to round-table conferences centering around the four major lines of interest represented by the Society: industry, agriculture, homemaking, and commercial work. These round-tables dealt with the details of administering courses and with the training of teachers. It was clear that progress is being made along both of these lines. The stimulus which has come to vocational education through the Smith-Hughes act has brought into the field a large number of serious-minded educators. They are at work in all parts of the country attacking problems connected with the organization of courses of study and developing a body of trained teachers who will raise the teaching of industrial subjects to the level of professional excellence where it belongs and where it can command the respect of teachers in other fields of school work.

The sectional meetings on commercial work attracted much attention. There was special interest in the subject of retail selling and in the development of a body of reliable written material covering this work. Contributions were made from the experience of such organizations as the Retail Merchants Research Association of New York and the Bureau of Salesmanship, Carnegie Institute, Pittsburgh. The work

of these bureaus indicates what can be done in all vocational fields, not only to bring about better business practice, but also to serve as a basis for sound educational practice in the preparation of young people for particular lines of vocational work.

There was expressed throughout the meeting the feeling that courses should be standardized and that there should be definite methods of measuring the results of teaching in the various subjects.

The meeting was clearly a transitional one so far as the Society itself is concerned. In the past it has been supported very largely through the generosity of a few individuals. These contributions have enabled the Society to retain a paid secretary and to carry forward its constructive program. At this meeting such support was cut off and the organization faces the problem of readjusting its financial policy. On the whole, this seems a fortunate situation because of the feeling that the organization has not been as democratic as could be desired. This criticism has held not only as to financial support but as to control of the organization, which has naturally been closely allied with financial support. It has been felt that to all intents and purposes the Society was an eastern rather than a national organization and that it has not in any real way represented the West or Middle West. If the organization can become truly democratic and if it can be made to represent the country west of the Appalachians and west of the Rockies, there is good reason to believe it will get the support necessary for carrying out a constructive program. This is especially true if the proposed journal is made to represent the country at large and becomes the national organ for the exchange of ideas in connection with the fields of work represented by the Society. The degree of usefulness of this or any other similar organization at this time depends upon the extent to which it becomes a truly democratic body. The spirit of the St. Louis meeting indicates a possibility for the development of such an organization.

E. T. Filbey

EDUCATIONAL SPECIFICATIONS FOR BUILDINGS

There is a committee of the National Education Association which is studying school buildings with a view to preparing a series of standard specifications. This committee conducted a meeting in connection with the recent session of the Department of Superintendence, at which meeting much progress was reported in arriving at architectural standards.

There is one phase of this matter which it may be well to illustrate and on which school officers can well spend time and thought. While the architects are trying to make their specifications more scientific and satisfactory, school people ought to be learning how to make up educational specifications. There ought to be a clear statement by the high-school principal every time a new building is to go up of the course of study which is to be housed, of the prospects of future development of the school, of the distribution of classes which is contemplated, and of the accessories which are required for the social life of the school. Such educational specifications should be standardized no less than specifications for brick and mortar and for the width of corridors and the height of windows.

There recently came into the hands of the editors of the *Review* a series of such educational specifications prepared by the superintendent of schools at Janesville, Wisconsin. A few paragraphs may be quoted to indicate the character of these specifications. The quotations do not cover all the points made, but will serve to suggest the lines of information which should be worked out.

Janesville is a manufacturing city, located in a rich agricultural region, and while the attendance from the rural sections will be increased somewhat by the attractiveness of better school opportunities, the greater increase by far will come from the houses of the people attracted to the city by reason of the very large increase in the manufactures.

Officers of the General Motors Corporation have stated that due to the advent of their traction plant, the population will be increased to such a

degree that within five years our population will have trebled or quadrupled. This suggestion is entered here because it is pertinent to have this radical growth in mind in all public building plans.

It is now contemplated to have the proposed building house a Senior high school composed of the Sophomore, Junior, and Senior classes, present enrolment about 400; a Junior high school composed of the 7th grades, the 8th grades, and the Freshman classes, present enrolment about 400; and a Vocational school with a daily attendance of about 200 including both full-time and part-time pupils.

From the above data it would seem reasonable to expect that the new building would upon completion be called upon to accommodate 1,000 to 1,200 pupils and should have expansion possibilities to take care of at least 1,500. While additions might be made increasing the capacity to a still greater figure, it is not clear that either efficiency or economy is increased after the above figures are reached, and it might very well be much better in every way to go to a considerable distance and begin the duplication of the plant. . . . .

To this end we submit from present enrolment the following facts and figures for each of the departments in our high school. Presuming that the same relative proportions would hold true were the school three times its present size, i.e., 1,500 instead of 500 pupils, we have multiplied the figures for each department by 3, which may give a rough estimate of needed capacity for each department in order to adequately meet the demands made upon it. . . . .

Since a certain amount of extra or laboratory work is required in connection with such subjects as the sciences and agriculture, and other subjects such as domestic science, manual training, and commercial work are given double time, we add sufficient time to allow for these and find that at present the high school provides for approximately 2,500 pupil-recitation periods of 40 minutes each, every day; or 312 recitation seatings each period of the present 8 period day. That is, of our present high-school enrollment approximately 300 or $\frac{3}{5}$ are engaged in class work at any or every period of the school day. . . . .

The State requirements for vocational schools provide that 50 per cent of all instruction should be vocational or prevocational and 50 per cent academic.

It is well to recall, too, that the fundamental principles underlying the the Junior High School idea call for a maximum of manual activities and a minimum of academic work for these years.

Furthermore, it is desirable that full recognition be made of the demand that the high school program provide for a well balanced plan of study, work, and play in proper proportions and that all of these activities be provided for in such manner that they may be run concurrently and harmoniously.

Ample provision to meet the growing demand for physical education for all must be included.

THE FEDERAL DEPARTMENT OF EDUCATION

Congress did not pass the Smith-Towner bill. There was from the first no practical possibility of the passage of this bill by the Congress which adjourned on March 4. There is no possibility of the passage of an unmodified bill of this type by the next Congress. There is a very strong possibility of the passage of a bill which differs from the Smith-Towner bill in two respects.

First, the appropriation for general school purposes cannot pass. The appropriations for teacher-training, for Americanization, for the eradication of illiteracy, can secure very large support. It is and has from the first been unwise to seek at this time federal additions to local school funds. The people of the United States are willing to deal generously with schools if the matter is properly presented to them. School people must not relax their efforts to educate communities and states. The will-o'-the-wisp of a federal grant has in the last months distracted many a school officer from his task of training his community. That federal grants may be secured for some of the routine purposes of education after a federal department of education has prepared a general scheme and convinced the administration of its wisdom, is a possibility of the future, but not of the present.

Secondly, the bill presented to the next Congress will have to deal much more explicitly with the organization of the proposed department than does the Smith-Towner bill. A Democratic Congress might in war times turn over to the President the power to construct a department of education of

utterly undefined scope, but that is no longer possible under conditions which exist today.

Is it not time for school people to face frankly the fact that there is only one way in which legislation creating a federal department can be secured? Is it not wiser to see to it that a clear explicit bill be drawn rather than a vague indefinite bill which looks like an appropriation request with a weak and highly compromised department attached?

School people will have to give up the idea that a weak and ill-equipped department can solve national problems. The Smith-Towner bill purposely left out some of the great national educational issues because of fear of opposition. Is it not wiser to face opposition and by frank discussion clear the way for an effective organization? The times are ripe for real educational statesmanship, not for compromise.

COLLEGE ENTRANCE AND INFLUENZA

We are asked to give publicity to the following:

At the thirty-third annual meeting of the New England Association of Colleges and Secondary Schools, held in Boston, December 7, 1918, the following resolution was adopted:

> Inasmuch as on account of the influenza epidemic schools have been closed during the school year 1918–1919 in practically all communities for varying periods of from three to seven weeks; and inasmuch as in the school year 1917–1918 many schools lost time because of the coal shortage; and inasmuch as in the school year 1916–1917 many schools were closed for some weeks because of the epidemic of anterior poliomyelitis, it is evident that the academic preparation of the class which enters college September, 1919, will unavoidably be less thorough than usual.
>
> Therefore, *be it resolved*, That the New England Association of Colleges and Secondary Schools recommends that college executive officers and faculty committees on admission, in determining the fitness of candidates for admission to college in 1919, give even more weight than usual to the school records of the candidates and the recommendations of the principals of the secondary schools.

SOCIETY OF COLLEGE TEACHERS OF EDUCATION

The program of the Society of College Teachers of Education was carried out at the Chicago meeting, February 24 and 25 as announced. The outstanding features of the meeting were:

1. Committee reports, Monday forenoon with a large place given to the Committee on Practice Teaching for Secondary Teachers.

2. College courses in education and the desirability of agreement on titles, content, and sequence.

3. Determining the mental ability of children.

4. Joint session with the Department of Normal Schools on the preparation of teachers for American public schools.

The business session of the Society was confined to committee reports. The Nominating Committee, consisting of Professors John W. Hall, William S. Gray, A. S. Whitney, and Miss Anna McKeag, reported as follows: For President, Frank P. Graves, dean of education, University of Pennsylvania; for Secretary-Treasurer, G. M. Wilson, professor of education, Iowa State College, continued; for member of the Executive Committee to replace F. J. Kelly, Earnest Horn, professor of education, University of Iowa; for member of Executive Committee to replace Frank P. Graves on account of election as President, Franklin Bobbitt, professor of education, University of Chicago. The report of the Nominating Committee was adopted.

The Auditing Committee, consisting of Professors H. O. Rugg, H. G. Good, and R. A. Kent, submitted the following report:

"The Auditing Committee has examined the books of the Secretary-Treasurer in detail for the year February 1918–February 1919, and records its belief that the accounts are accurate as reported. The present financial status of the Society is as follows:

Balance February 1916	$ 186.67	
Balance February 1917	272.79	
Balance (cash on hand) February 1918		574.66
Receipts (from dues, monographs, etc.) February 1918–February 1919		360.77
Total		$935.43
Expenditures February 1918–February 1919		214.51
Cash on hand February 25, 1919		$720.92

(This amount includes an investment of $300 in 4¼ Fourth Liberty Bonds.)"

The committee also made the following recommendation which was adopted by the Society: "It is recommended by the Auditing Committee and moved by the chairman that future publications of the Society be sent only to those members who are paid up to date."

The Committee on Resolutions, consisting of Professors W. W. Kemp, D. A. Anderson, and Carter Alexander, submitted the following report, which after considerable discussion of resolutions 1 and 2 was adopted without change:

"1. Believing that the proposed League of Nations is a movement towards universalizing the principles of the Monroe Doctrine, *resolved*, That we record our approval of it.

2. *Resolved*, That we endorse the Smith-Towner bill now pending in Congress which provides for a Secretary of Education in the President's Cabinet and for the appropriation of funds for the better support of education in the states; and resolved that we urge the setting aside, from the funds for encouraging teacher training as proposed in said bill, of a sufficient amount to provide for the establishment of an experimental school center or centers in each state, thus establishing for education a feature similar to the agriculture experiment stations and to the proposed experimental station for engineering.

3. *Resolved*, That we record our hearty approval of the program of educational development as outlined for the National Education Association by President Strayer, and pledge our active co-operation thereto.

4. *Resolved*, That the Society endorses the efforts of the Federal government, through the U.S . Bureau of Education and the U. S. Employment Service (in the Department of Labor) in co-ordinating teacher placement bureaus of colleges, universities and other educational institutions, provided that all questions pertaining to the professional standards of certification and teacher-rating shall be determined by the Bureau of Education.

5. *Resolved*, That the Society's Committee on College Courses in Education be requested to report at a future meeting on the present status of teachers' courses in high-school subjects, as a part of the educational requirements for high-school certification.

6. *Resolved*, That this Society endorses the recommendations of the chairman of the Committee on Practice Teaching as presented at the meeting on Monday, namely:

a. That secretary of Society use same plan as last year to enlist all in active work.

b. That promotional activity be carried out to secure more and better facilities for practice teaching for secondary teachers under *supervision*.

c. That the secretary of the Society act as the agency for the distribution of material used in the promotional activity, and that members of this committee supply the material.

d. That the larger and better equipped teacher-training institutions provide work to train men and women to *supervise*, or *direct* practice teaching for secondary teachers.

e. That a sum of money sufficient to pay for the propaganda work mentioned above be placed at the disposal of the secretary

of the Society, subject to the approval of the Executive Committee."

In accordance with the above resolutions, the secretary is sending to members of the Society a brief statement on the present status of the committee work of the Society. Each member of the Society is urged to co-operate in carrying forward the program of study and research which the Society has under way.

Respectfully submitted,

G. M. Wilson, *Secretary*.

Ames, Iowa
March 10, 1919

Educational Writings

I. RECENT BOOKS FOR HOME ECONOMICS IN HIGH SCHOOLS[1]

DEPARTMENT OF HOME ECONOMICS
University of Chicago

BOOKS AND PAMPHLETS FOR SOCIAL WORKERS AND TEACHERS OF HOME ECONOMICS

Some of the most helpful material which has been contributed to home economics literature recently has been printed, chiefly in pamphlet form, by charity organizations, child health organizations, the United States Children's Bureau, and others interested in getting food knowledge across to the people. Since some of these publications are especially valuable to the teacher, and the knowledge of how to secure them not always easily obtained, it has seemed wise to include them here.

NESBITT, FLORENCE. *Household Management.* New York: Russell Sage Foundation, 1918. Pp. 164.

"The object of this little volume," as is well stated in the introduction, "is to offer the busy social worker whose specialty is family work and whose contact with burdened mothers gives her rich opportunities for spreading the gospel of right living, a translation of the principles underlying nutrition and the other arts and sciences connected with homemaking into terms of the simplest daily life." Miss Nesbitt is eminently fitted to do this task. She is both a dietitian and a social case worker, and has had a rich experience, first with the United Charities of Chicago and later as director of case work of the mother's pension department of the Juvenile Court of Chicago. The book is the result of her years of varied experiences in helping families with small incomes to get the most for their money.

Though this book is written primarily for the social workers, its use should not by any means be confined to them. Indeed it is difficult to think of any group of people who would not be profited by reading it—the ordinary reader, because the touches of human life portrayed therein help him "to

[1]Continued from School Review, March, 1919, p. 219.

see everyday life more sanely and interpret it more sympathetically"; the housewife, because the essentials of an adequate diet and economy in buying are set down in a remarkably simple and concrete manner; the teacher, not only because the book will be helpful on the subject-matter side, but because she has even a better chance than does the social worker to "spread the gospel of right living" among children.

GILLETT, LUCY H. *Food Primer for the Home.* New York: Bureau of Food Supply, A.I.C.P. 105 East 22d St.

This small book of but twenty pages, arranged primarily for teaching proper diet to the children under the direction of the Association for Improving the Condition of the Poor, covers by means of graphic charts and a series of questions and answers some of the most important facts concerning the essentials of an adequate diet, and simple rules for true economy in buying. It should be suggestive and helpful to the high-school teacher in her budget work and also an aid in instituting proper diet habits among her students. Wall charts like the pictures in the book may also be secured.

DEPARTMENT OF PUBLIC CHARITIES. *Basic Quantity Food Tables to Be Used in Determining the Daily Issue of Food to the Kitchen.* Prepared for the use of institutions. New York, July, 1917. Distributed by Municipal Reference Library, 512 Municipal Building. Pp. 120. $1.25 postpaid.

This book of tables is designed to be a quick means of determining the quantity of food necessary for a given number of persons. A preliminary table giving sizes of containers with the number of portions per container is given, along with instructions for ordering. The remainder of the book, some 120 pages, is a series of tables showing the quantities of different foods to order for groups varying from two to one hundred in number. The book is of course most valuable to the institutions for which it is primarily intended. It is reviewed here with the thought that high-school teachers who teach large-quantity cooking or who have charge of school lunchrooms might find it useful for a reference book.

CHARITY ORGANIZATION SOCIETY. *Food Demonstration Work for Congested City Neighborhoods.* New York, 105 East 22d Street, 1917. Pp. 17.

This pamphlet is a summary of practical suggestions for food demonstrations, based on an experiment in the congested foreign sections of New York City. The conclusions, therefore, are most applicable in similar situations, but any person giving demonstrations will find the suggestions valuable.

THE NATIONAL CONFERENCE OF SOCIAL WORK has published reprints of addresses made at the annual meeting at Pittsburgh in 1917. These may be

secured from the National Conference of Social Work, 315 Plymouth Court, Chicago, Illinois. Among these are:

A Community Kitchen in a Neighborhood House, by FRANCES INGRAM, Head Resident, Neighborhood House, Louisville, Kentucky. Pp. 5.

This interesting report of an attempt to teach the use of wheat substitutes among groups of foreign women seems—unlike some of our wartime literature—to be of more than temporary value. The methods used to interest the women, as well as the facts concerning racial peculiarities of diet which are given in the pamphlet, make it worth while to any who are engaged in food work in foreign districts, among these being the teachers in the public schools.

Economy in Diet. By GRAHAM LUSK. Pp. 9.

In this address Dr. Lusk discusses thinness as a patriotic duty and also as a means of improving health and increasing the expectancy of life. On the other hand, he emphasizes the fact that a definite amount of work requires a definite quantity of food fuel, making his application to the feeding of soldiers. The remainder of the article presents practical and interesting methods of economizing food. Some of these have been actually tried in European countries.

UNITED STATES CHILDREN'S BUREAU Publications may be secured free from the United States Department of Labor, Children's Bureau, Washington, D.C. A number of these relate to food and clothing:

Child Care. Part I. The Pre-school Age. By MRS. MAX WEST. 1918. Pp. 88.

This bulletin is the third in the "Care of Children Series." It discusses the care of the child during the pre-school period (two to six years) in regard to food, hygiene, clothing, discipline, and other matters relating to the welfare of this group. It is designed especially for mothers who do not live where they can have the advantages of infant and child welfare associations, visiting nurses, and special children's physicians; but it might well be put into all homes where there are children. Since much of the material is equally applicable to older groups, any teacher of children should have a copy.

Milk, the Indispensable Food for Children. By DOROTHY REED MENDENHALL, M.D. 1918. Pp. 32.

This pamphlet summarizes in non-technical language the most up-to-date facts concerning the nature of milk and its necessity as a food for children. It includes material on pasteurized, sterilized, condensed, and dried milk and discusses their use in the feeding of infants and older children.

An extensive list of references on milk adds greatly to the value of this bulletin.

Studies of the Use of Milk by Families Having Little Children.

Three leaflets giving the results of investigations in Baltimore, Washington, and New Orleans.

Baby Week Campaigns. 1917. Pp. 152.

A summarized account of the nation-wide baby campaigns of 1916 of interest to all workers with children. A few parts relating to food, clothing, and school lunches will be of special interest to the home economics teacher.

How to Conduct a Children's Health Conference and a number of other pamphlets dealing with the Children's Year will also be found to be of interest.

The Child Health Organization of 289 Fourth Avenue, New York City, has collected and printed considerable material for use in a campaign for health education among children. It includes a number of reprints of articles dealing with malnutrition, small booklets written for the organization, and tags, charts, etc., useful in conducting a nutrition clinic. A small charge is made for this material, from one to ten cents according to the size. Samples are sent on request. Some of these which are especially worthy of mention are:

Standards of Nutrition and Growth. By L. Emmett Holt, M.D.

A short discussion of standards by which nutrition and growth are estimated, with tables giving height and weight for boys and girls of various ages and also the annual rate of gain in height and weight.

Safeguarding the Health of Our School Children. By L. Emmett Holt, M.D.

A reprint of an article in the *New York Times* of June 30, 1918.

How to Conduct a Nutrition Class.

A pamphlet of practical suggestions giving methods of selecting the children for the nutrition class, how to conduct a class, diet sheets used and descriptions of food exhibits, and information as to how and where to secure them.

Diet for the School Child.

A booklet to be put into the hands of children or their parents. It contains directions for feeding, helps for planning meals, and a number of pictures illustrating good and bad feeding habits.

Wanted! Teachers for Child Health Service.

A pamphlet written to interest teachers in the nutrition work.

War Prices and Undernourished Children. By Lucy Oppen.

Reprint from *Good Housekeeping*, July, 1918. A general statement of the problems of malnutrition, with suggestions for remedying it by proper feeding. Diets in terms of specific foods are given for a three-year-old and an eight-year-old child.

Child Health Alphabet.

An A B C picture book beginning, "*A* is for Apples and also for Air," and continuing through the alphabet with a health suggestion for every letter. The pictures are attractive and the rhymes—barring a few obviously written merely for the sake of completing the alphabet—are good and to the point. It should be very helpful in the work with small children.

Among the other material are a wall chart for use in the schoolroom, a card of height and weights for the boy or girl to carry in the pocket, and a tag giving the child's height and weight and what his normal gain should be per month.

II. BOOK NOTES AND REVIEWS

A handbook to aid in conducting surveys of religious education in the local church.—Our readers are no doubt already familiar with the application of applied social science and education. We now have a book[1] which applies the survey idea to religious education. It is another assuring witness to the increasing adoption of the scientific method of measuring efficiency in this field, and augurs much for future developments.

The author states the purpose of the volume as follows: "to aid groups of students in religious education, local churches that have become awakened to their educational responsibility, and groups of administrators and teachers in the Sunday school in making a careful survey of the work of religious education in the local church."

Since many students will come to a consideration of the subject without previous study of the social and educational survey, these fields are treated somewhat fully in Part I of the volume. Part II deals with "The Schedule." It is introduced by a brief chapter on the use of the schedule. The remaining chapters present schedules for the survey. Each division of the schedules is followed by references for reading.

The volume closes with a brief bibliography.

There is no reason why the institutions for religious education should not be surveyed, and we predict much activity in this field now that Professor

[1] William Clayton Bower, *A Survey of Religious Education in the Local Church.* Chicago: The University of Chicago Press, 1919. Pp. xv+177. $1.25.

Bower has given us a set of principles and a technique for a survey. The book is one of the real contributions to religious education.

A study in the economic relations of women.—The Department of Research of the Women's Educational and Industrial Union, Boston, has published ten important studies to date. Volume IX of these studies has just come to hand. It is entitled *Industrial Experience of Trade School Girls in Massachusetts.*[1]

This study, like its predecessors, is thoroughly scientific. It is replete with facts organized and interpreted in an intelligible manner. It contains chapters on the school problem; industrial experience of Boston trade-school girls; wages of Boston trade-school girls; industrial experience and wages of Worcester and Cambridge trade-school girls; the girl who has been trained in the trade school; industries for which trade schools train; and conclusions which are drawn for future development and adjustment. Appendix A outlines the courses and administration of the trade schools for girls in Massachusetts, and Appendix B does the same for the evening industrial schools.

A study of American agricultural colleges.—A recent bulletin of the United States Bureau of Education is one pertaining to the organization and the requirements for admission and graduation of the American agricultural colleges. It is the report of a study made by Dr. Chester D. Jarvis,[2] the bureau's specialist in agricultural education.

The bulletin comprises three parts. Part I deals with general discussions and tabulations concerning the government and organization, and the agricultural curricula offered by each college. Part II indicates the requirements for admission, and Part III, those for graduation.

Dr. Jarvis states that it has been prepared for the special use of persons charged with the administration of agricultural colleges. It should be of use also to secondary-school people who have need to advise students concerning the curricula, admission and graduation requirements of the various colleges.[1]

A discussion of the work of the teacher.—The Macmillan Company has recently published a book[2] which in all probability will come to occupy an important place in the professional reading of many teachers. The volume

[1] By May Allison and others. Washington, D. C.: The United States Bureau of Labor Statistics, 1917 Pp. 275. $0.80.

[2] *American Agricultural Colleges.* Washington, D. C.: Bureau of Education. Bulletin, 1918, No. 29. Pp. 125. $0.15.

[1] The foregoing reviews were contributed by W. G. Reeder, Fellow in Education, University of Chicago.

[2] S. E. Davis, *The Work of the Teacher.* New York: Macmillan, 1918. Pp. xvi+342.

is concerned with the teacher *as a teacher*. It deals primarily with the technical responsibilities of her occupation. Special consideration is given to the assignment, the recitation, the study-period, measuring the work of the school, attendance, records, reports, the teacher's relation to the curriculum, the teacher and educational statistics, and the teacher in relation to external elements. At the end of each chapter is a long list of exercises, questions, and problems, as well as a brief list of readings. The discussion is modern throughout. Much use is made of similar books in the field. While the book contains no specific contributions, it does place the old and familiar before the reader in an attractive way.

A new textbook in the field of political economy.—A handicap which the advocates of political economy in the secondary school have never been able to overcome in a satisfactory way is the lack of a suitable textbook in the field. All the attempts to date in the matter of textbooks in economics adapted to secondary students seem to have fallen short in many respecst, the outstanding one being the absence of concrete material. Since this fact is so well known, one might suppose that very recent books would attempt to rectify it. Such, however, does not seem to be true, if one is to base his judgment of present-day tendency on Professor Carver's most recent publication,[1] which deals largely with principles, as the title suggests. Inasmuch as this book does not claim to be especially adapted to the secondary field, it cannot be judged wholly from this angle. In Professor Carver's own words the purpose of the book is "to examine the economic foundations of our national strength and to point out some of the more direct methods of improvement, to the end that our democratic nation, and all democratic nations, may grow prosperous and great in all the elements of national greatness."

Seven large topics are treated in the discussion. They are: reform, public finance, consumption of wealth, distribution of wealth, exchange, production, and underlying conditions of national prosperity. From two to fourteen chapters all devoted to these topics. Subjects of vital economic importance to national and individual prosperity are treated in each chapter. While the book seems a little heavy and bulky for high-school students, it will in all probability become a leading text in college and university classes in economics.

A new history of Latin America.—Considerable interest has of late developed in the history of Latin America. While courses in this field to date have been confined to colleges, there are a few individuals who would introduce a course in the history of our neighbors to the south into the high school.

[1] *Principles of Political Economy*. Boston: Ginn & Co., 1918. Pp. x+588.

The advocates of such a study in high school have been laboring under the handicap of a scarcity of suitable material. If his treatment proves to be adapted to secondary-school students, a recent book[1] by Professor Sweet, of DePauw University, will be welcomed by those who desire to see a study of the history of Latin America introduced into high schools.

As indicated by the chapter headings, the book contains material on all phases of Latin-American life. Economic conditions, international relations, government, colonial administration, physical aspects, races, and society received considerable attention. Marginal rather than paragraph headings are employed; reading references in English are placed at the end of each chapter; some twenty good maps are scattered throughout the book. It will certainly pay anyone interested in either a text or a reference book in this field to examine critically Professor Sweet's work.

An important book on national governments and the World War.—The Macmillan Company has recently published an elaborate treatise on the general subject of governments and the World War.[2] The volume is offered as an aid to the diffusion of knowledge along the line of the bearings of governmental organization and practice upon public well-being. It deals primarily with comparative government and aims to show what the principal peoples recently engaged in war have contributed to the shaping of contemporary institutions and ideas, as well as to describe the great changes which have been wrought in governmental organization and procedure during the war and to point out the paramount unsettled political problems that now face the world.

The authors have divided their elaborate discussion into four parts, dealing with government in the United States, with governments of the allied nations, with government in the Teutonic states, and with the war and political reconstruction. While the book seems to be an after-war product, it contains little that could not have been written in 1914. When one thinks of the momentous changes that are sure to be effected in the near future in the governments of Europe, one is somewhat surprised at the appearance at this time of a work like the one under discussion. In spite of the fact, however, that much of what the book contains will ultimately have historical interest only, those interested in the subject of comparative governments will welcome this vigorous and elaborate discussion by two well-known writers in the field of political science.

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[1] *A History of Latin America* New York: Abingdon Press, 1918. Pp. 283. $3.00.

[2] F. A. Ogg and C. A. Beard, *National Governments and the World War.* New York: Macmillan, 1919. Pp. viii+603. $2.50.

III. CURRENT PUBLICATIONS RECEIVED DURING THE PAST MONTH

A. GENERAL EDUCATIONAL METHOD, HISTORY, THEORY, AND PRACTICE

CODY, SHERWIN. *Commercial Tests and How to Use Them.* Yonkers-on-Hudson: World Book Co., 1919. Paper. Pp. vii+216.

DAVIS, SHELDON E. *The Work of the Teacher.* New York: Macmillan, 1918. Pp. xv+342. $1.30.

FRIEDEL, V. H. *The German School as a War Nursery.* New York: Macmillan, 1918. Pp. 270. $1.30.

LAMBERTON, C. D. *Professional Arithmetic Note Book. Teaching the Special Topics.* Paper. Published by the *School Quarterly*, Berlin, Wis., 1917. Pp. 20. $0.15.

NATIONAL SOCIETY FOR THE STUDY OF EDUCATION. "The Professional Preparation of High-School Teachers," *Eighteenth Yearbook*, Part I, 1919. Pp. 372.

SHERIDAN, HAROLD J., and WHITE, G. C. *Learning and Teaching.* New York: Methodist Book Concern, 1918. Pp. 207. $0.60.

B. BOOKS PRIMARILY FOR ELEMENTARY-GRADE TEACHERS AND PUPILS

O'KANE, WALTER C. *Jim and Peggy at Meadowbrook Farm.* Farm Reader Series. New York: Macmillan, 1917. Pp. xiii+223. $0.60.

SKINNER, ELEANOR L., and SKINNER, ADA M. *Happy Tales for Story Time.* New York: American Book Co., 1918. Pp. 180.

C. BOOKS PRIMARILY FOR HIGH-SCHOOL TEACHERS AND PUPILS

ANDERSON, H. S. *Food and Cookery.* Mountain View, Cal.: Pacific Press Publishing Association, 1917. Pp. 163.

BALDERSTON, LYDIA R. *Housewifery. A Manual and Text Book of Practical Housekeeping.* Philadelphia: J. B. Lippincott Co., 1919. Pp. 353.

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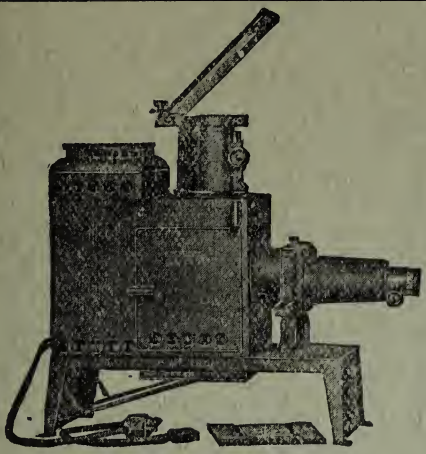

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